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**Third Five-Year Review Report for the  
Hudson River PCBs Superfund Site**

**APPENDIX 8  
FISH CONSUMPTION CONSIDERATIONS**

Prepared by:

United States Environmental Protection Agency

July 2024

**THIRD FIVE-YEAR REVIEW REPORT FOR THE  
HUDSON RIVER PCBs SUPERFUND SITE**

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**THIRD FIVE-YEAR REVIEW REPORT FOR THE  
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**LIST OF ATTACHMENTS**

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- ATTACHMENT A      New York State Department of Health (NYSDOH) Hudson River PCBs Superfund Site Community Advisory Group Presentations:
- October 27, 2016 NYSDOH Hudson River Fish Advisory Outreach Update
  - June 3, 2021 NYSDOH Hudson River Fish Advisory Outreach Update
- ATTACHMENT B      New York State Department of Health (NYSDOH) Information:
- Website: [Hudson River Fish Advisory Outreach Project](#)
- Brochure: [Hudson River – Health Advice on Eating Fish You Catch](#)
- Advisory Tables: [Hudson River Advice](#)

## 1 FISH CONSUMPTION ADVISORIES AND REGULATIONS

The U.S. Environmental Protection Agency's (EPA) selected remedy for Operable Unit 2 (OU2) of the Hudson River PCBs Superfund Site (Site) included a combination of remedial activities that were tailored to conditions at the Site, including removing contaminated sediment using environmental dredging techniques and monitored natural attenuation of residual polychlorinated biphenyl (PCB) contamination until acceptable PCB concentrations in fish are met. The 2002 Record of Decision (ROD) also specified that human health risk reduction will rely on the public's knowledge of and compliance with institutional controls (ICs) in the form of fish consumption advisories and fishing restrictions until the remedial action objective goal of 0.05 milligrams per kilogram (mg/kg) – parts per million (ppm) in fish (rib-in fillet) is met (EPA, 2002). Although not the subject of this Five-Year Review (FYR), the Lower Hudson River portion of the Site (OU5) is also discussed in this appendix.

This appendix contains information about the ICs based in part on information provided by the New York State Department of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC). NYSDOH establishes advisories for fish consumption across New York State. NYSDEC establishes fishing restrictions through regulation to prohibit the possession of fish.

EPA continues to coordinate with NYSDOH and NYSDEC regarding all aspects of the Site including the consumption advisories and fishing restrictions.

### *Hudson River Fishing: Historical Overview and Considerations*

Fishing is an encouraged recreational activity, and fish are an important part of a healthy diet. Fish contain high-quality protein, essential nutrients, and healthy fish oils; and are low in saturated fat. However, some fish contain chemicals at levels that may be harmful to human health. The primary chemicals of concern in Hudson River fish are PCBs that can build up in the human body over time. The Hudson River also has advisories in place for other contaminants including mercury, cadmium and dioxin for some fish species in certain areas.

#### Upper Hudson River (OU2 - Subject of this FYR)

- The Upper Hudson covers the 43-mile section of the Site from the Federal Dam at Troy to the South Glens Falls Dam.
- In 1976, due to PCB contamination in the Hudson River, NYSDEC banned all fishing in the Upper Hudson.
- In 1995, NYSDEC reopened the Upper Hudson River to sport fishing on a catch-and-release basis only. This regulation states that fish caught in this area should be immediately returned to the water without unnecessary injury to the fish. Since no fish may be possessed, the use or possession of fish as bait is also prohibited. This regulation applies to

all tributaries in this section of the Hudson River up to the first barrier (dam or waterfall) that is impassable to fish. Fines for violation of any of these rules carry a maximum penalty of \$250 per violation and are enforced by NYSDEC.

- Despite the “take no fish, eat no fish” fishing restriction in the Upper River, NYSDOH fish advisory outreach program focuses on all parts of the project area. Their program funds partners in the Hudson Valley that encompasses Saratoga County all the way to Westchester County.

#### Lower Hudson River (OU5 – not the subject of this FYR)

- The Lower Hudson River covers the 160-mile section of the Site from the Battery at New York City (NYC) to the Federal Dam at Troy.
- In 1976, due to PCB contamination in the Hudson River, NYSDEC banned most commercial fishing in the Lower Hudson River.
- In general, fish from the Lower Hudson River are less contaminated than those in the Upper Hudson.
- NYSDOH has further divided the Lower Hudson River into sections for the purposes of the advisories:
  - Lower Hudson – Battery at NYC to the Rip Van Winkle Bridge at Catskill
  - Mid-Hudson - Rip Van Winkle Bridge to the Federal Dam at Troy.
- The Lower Hudson and Mid-Hudson advisories allow for certain fish and crab consumption by the general population and advises “eat none” for fish and crab for the sensitive population. The sensitive population is those (under 50) who can bear children and children under 15 years old. The amount of fish and crab that can be consumed safely is listed in Attachment B.
- The Lower Hudson River advice also applies to its tributaries and connected waters if there are no dams, falls, or barriers to stop the fish from moving upstream. This is because chemicals remain in fish when they move from one waterbody to another.
- Information regarding the safe preparation of fish and crab is included in Attachment B. In general, PCBs can be reduced by trimming, skinning, and cooking your catch as advised by NYSDOH.
- Certain species with a lot of fat, like catfish and eels, should be avoided because they typically have higher levels of PCBs.

#### ***The New York State Department of Health Hudson River Fish Advisory Outreach Project***

As a condition of the 2005 Consent Decree between EPA and the General Electric Company (GE), GE contributed \$4 million to Health Research, Inc., of Rensselaer, New York, to support the State’s implementation of fish consumption advisories. In 2008, NYSDOH established the Hudson

River Fish Advisory Outreach Project (see Attachment B). The goal of the 20-year initiative is for all people who consume Hudson River fish and crab to be aware of and follow the Hudson River fish advisories.

The objectives of the program include:

- Encouraging anglers and other fish consumers to follow health advisories;
- Promoting awareness of advisories by posting signs at major fishing access sites on the river;
- Maintaining advisory awareness through education and promotional activities for all targeted and impacted populations;
- Identifying reasons that anglers or other fish consumers may not follow the fish advisories and to modifying outreach activities, so they are more effective.

NYSDOH outreach project staff have provided regular updates on their work to EPA and the Site's Community Advisory Group (CAG). Attachment A includes presentations presented by NYSDOH to the CAG since the last FYR. EPA regularly coordinates with NYSDOH outreach staff.

The NYSDOH Fish Advisory Outreach Project approach includes:

- Identifying and supporting partners who can develop and administer fish advisory outreach programs.
- Working with property owners to post signage at major fishing access sites.
- Evaluating outreach efforts to determine which ones are working and what barriers exist for those that are not working.
- Incorporating emerging health education methods into outreach efforts.
- Implementing culturally appropriate strategies to encourage people to follow the advisories.

Ongoing Fish Advisory Outreach Project activities include:

- Tabling at a range of events including fairs, community festivals, hunting and fishing shows, and presenting to fishing and boating organizations, faith-based and neighborhood associations, food pantries, and educational groups.
- Posting fish advisory signs and providing signs to property owners. Maintaining signs and mapping sign locations. Signage is available in multiple languages. Sign locations are viewable on the NYSDOH Hudson River Fish Advisory Outreach Project webpage.
- Distributing fish advisory materials. Materials are available in various languages.

- Identifying nearby alternate fishing locations away from the Hudson River where there are fewer fish consumption advisories.
- Providing hands-on learning opportunities regarding preparing fish and crab for meals.
- Identifying and conducting outreach to newcomers to the Hudson Valley.
- Performing outreach specific to striped bass because some people feel the advisories do not apply because they believe they are ocean fish.
- NYSDOH also has funded partners who support them with various activities including conducting informal surveys on fish consumption and promoting fish advice via the media.

As Hudson River PCB concentrations in fish continue to decline over time, it is expected that the advisories and restrictions could be relaxed, recognizing that there are other factors which are considered in relaxing fish consumption advice as summarized below. In general, in terms of PCBs, NYSDOH adjusts and reduces advisories based on the following guidelines:

PCB concentration range (ppm)	Advisory	
	General Population	Sensitive Population
<0.21 ppm	Eat up to 4 meals per month	Eat up to 4 meals per month
≥0.21 ppm - <0.5 ppm	Eat up to 4 meals per month	Eat up to 1 meal per month
≥0.5 ppm - <1 ppm	Eat up to 1 meal per month	Eat up to 1 meal per month
≥1 ppm	Don't eat	Don't eat

Source: [https://www.health.ny.gov/environmental/outdoors/fish/health\\_advisories/background.htm](https://www.health.ny.gov/environmental/outdoors/fish/health_advisories/background.htm)

NYSDOH takes into consideration various factors when reviewing fish consumption advisories. These factors include but are not limited to the following:

- A quantitative health risk assessment, based on toxicity values (e.g., from the EPA Integrated Risk Information System [IRIS] toxicity database) and representative fish consumption rates, is used to evaluate risks.
- Data characteristics (e.g., number and type of samples, species, age, length, percent lipid, and sample location) are evaluated to determine whether the data are adequate to represent contaminant levels in the fish and game population of interest.
- Temporal and spatial patterns are considered when characterizing fish contaminant levels.

- Populations at greater potential risk are considered, recognizing that health risks may be greater for sensitive populations.
- The balance between the benefits of fishing and fish consumption versus risks of contaminant exposure are considered, bearing in mind that this balance may be different for at-risk populations versus the general population.
- The creation of advice that is appropriate, concise, and easy to understand and remember is an important factor.
- Consideration as to whether waters will undergo a change that may affect fish contaminant levels, such as sediment dredging or other contaminated-site remediation.

At the end of dredging in 2015, sport fish concentrations (i.e., bullhead, bass, and perch) were typically at or over 1.0 mg/kg – ppm. Based on 2020, 2021 and 2022 data, greater than 80 percent of the sport fish collected from the Upper Hudson River are now below 1.0 mg/kg – ppm and about 50 percent are below 0.5 mg/kg - ppm.

In terms of fish consumption, EPA has established two fish targets in the ROD to guide its consideration of fish consumption. The target concentrations are 0.2 mg/kg – ppm PCBs in fish fillet, which is protective at a fish consumption rate of one half-pound meal per month, and 0.4 mg/kg - ppm PCBs in fish fillet, which is protective of the average angler, who consumes one half-pound meal every two months. EPA noted in the ROD that attaining such levels might facilitate the relaxation of the fish consumption advisories by NYSDOH and fishing restrictions by NYSDEC (EPA, 2002).

EPA will continue to support the education and outreach efforts, including the need for continued funding of the outreach program beyond its current funding limit of 2027.

## 2 REFERENCES

EPA (United States Environmental Protection Agency). 2002. Hudson River PCBs Superfund Site Record of Decision. February.

New York State Department of Health (NYSDOH). 2024. “Hudson River Health Advice on Eating Fish You Catch.” Accessed at: <https://www.health.ny.gov/publications/2794.pdf>

\_\_\_\_\_. 2024. Health Advice on Eating Fish You Catch: Background Information. Accessed at: in [https://www.health.ny.gov/environmental/outdoors/fish/health\\_advisories/background.htm](https://www.health.ny.gov/environmental/outdoors/fish/health_advisories/background.htm). Accessed May 2024.



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# **Third Five-Year Review Report for the Hudson River PCBs Superfund Site**

## **APPENDIX 8**

### **ATTACHMENT A**

#### **NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) HUDSON RIVER PCBs SUPERFUND SITE COMMUNITY ADVISORY GROUP PRESENTATIONS**

July 2024

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# **Third Five-Year Review Report for the Hudson River PCBs Superfund Site**

## **APPENDIX 8**

### **ATTACHMENT A**

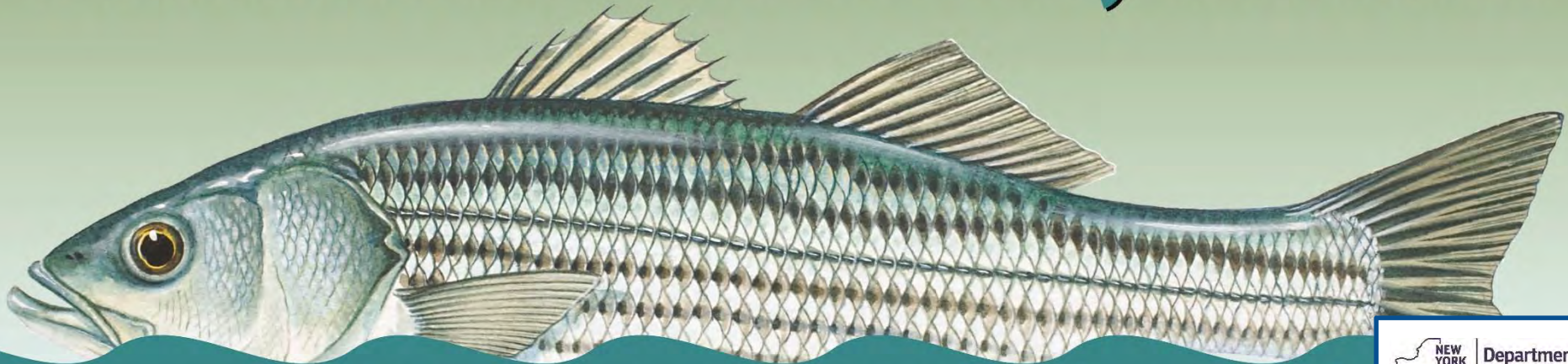
#### **NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) HUDSON RIVER PCBs SUPERFUND SITE COMMUNITY ADVISORY GROUP PRESENTATIONS**

**October 27, 2016 NYSDOH Hudson River Fish Advisory Outreach Update**

NYSDOH Hudson River Fish Advisory  
Outreach Program Update  
Hudson River PCBs Superfund Site  
Community Advisory Group October 27, 2016

New York State Department of Health

# Hudson River Fish Advisory Outreach

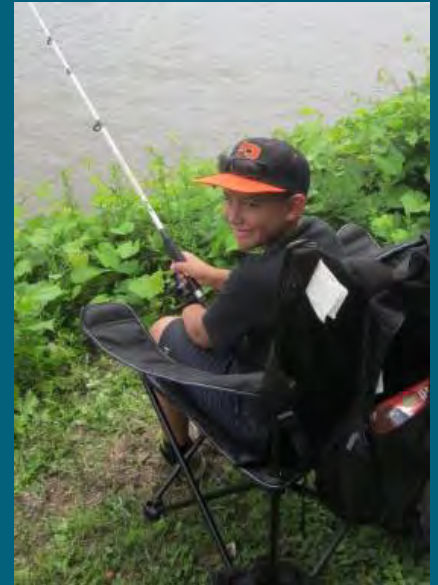


Can you eat that fish from the Hudson River? [www.health.ny.gov/fish](http://www.health.ny.gov/fish)



# Hudson River Fish Advisory Outreach Project

- Scope of Work: Everyone eating Hudson River fish knows, understands and follows the New York State Department of Health (NYSDOH) advice on fish consumption for 192 miles from Hudson Falls to NYC
- Commitment of 20 years through 2027
- Focus on community partnerships



Challenge: Reduce contaminant consumption but not reduce overall healthy fish consumption

# Hudson River Fish Advisory Outreach Project Activities

- Identify and support a group of partners who can develop and administer fish advisory outreach programs
- Secure permission from property owners to post signs at major fishing access sites, provide signs and ensure they are posted
- Broadcast public service announcements
- Evaluate outreach efforts to determine which ones are working
- Incorporate emerging health education methods into outreach efforts
- Develop and implement strategies to encourage people to follow the advisories

# Hudson Fish Advisory Outreach

## What Is the Advice?

- The advice depends upon who you are, where you fish, and what you catch
- Women under 50 (childbearing years) and children under 15 should not eat any Hudson fish or crabs downstream of Corinth in Saratoga County to the New York Battery
- A priority outreach audience is young women with families

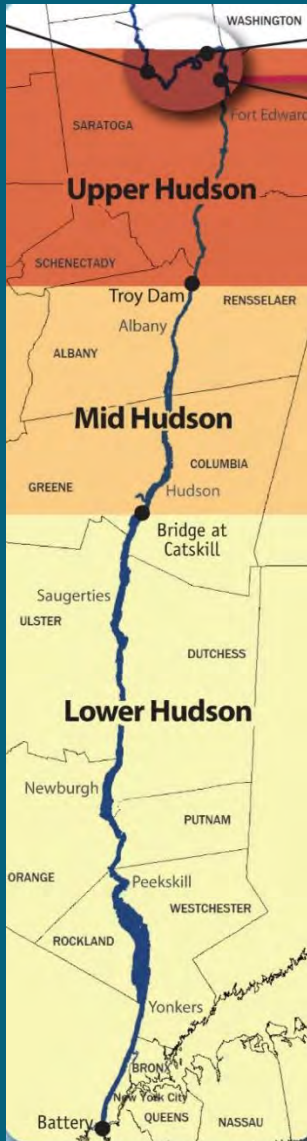
**WARNING!**

Fish and crabs from these waters contain chemicals and may be harmful to eat, especially for women and children.



*Learn more! Call NYS Department of Health*  
518-402-7800  
800-458-1158

# Hudson River Advice for Men and Women above 50: Hudson Falls to Catskill



**Upper Hudson**  
From the Rt. 9 Bridge to Troy Dam





Do not eat fish from the Route 9 Bridge to the Troy Dam.

From Baker's Falls to the Troy Dam, New York's State Department of Environmental Conservation's "catch and release" regulations apply.

**Take No Fish. Eat No Fish.**



















**Mid Hudson**  
From Troy Dam to Bridge at Catskill

Eat up to one meal a month:

 Alewife	 Rock bass
 Blueback herring	 Yellow perch

**Do not eat other fish from the Mid Hudson including striped bass**

# Hudson River Advice for Men and Women above 50: Catskill to NYC

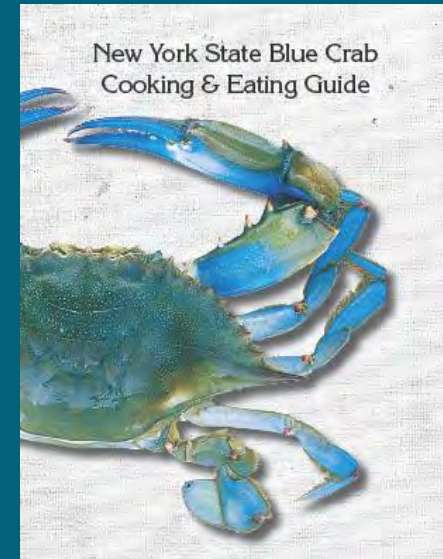
<p><b>Lower Hudson</b></p> <p>From Rip Van Winkle Bridge at Catskill to the NYC Battery</p>	 Men over 15 and Women over 50	 Women under 50 and Children under 15
 <b>Walleye</b>  <b>White catfish</b>  <b>Channel catfish</b>  <b>American eel*</b>  <b>Gizzard shad</b> <i>*DEC regulations prohibit taking American eel for food from the Hudson River</i>	DON'T EAT	DON'T EAT
 <b>Striped bass</b>  <b>Smallmouth bass</b>  <b>Largemouth bass</b>  <b>Bluefish</b>  <b>Brown bullhead</b>  <b>White perch</b>  <b>Carp</b>  <b>Rainbow smelt</b>  <b>Goldfish</b>  <b>Atlantic needlefish</b>	Up to 1 meal/month	DON'T EAT
 <b>Blue crab</b> Do not eat the tomalley (green stuff, mustard) or reuse cooking water	Up to 6 crabs/week	DON'T EAT
All other species	Up to 4 meals/month	DON'T EAT



# Hudson Fish Advisory Outreach

## What Is the Advice: Crabs

- More common south of Kingston
- Very popular – people who catch them, eat them
- In NYC rivers, dioxin, PCBs and cadmium build up in the mustard/tomalley
- Crab mustard/tomalley consumption is common for a number of ethnic groups
- 80% of the PCBs move into the cooking water - discard cooking juices and don't use to make sauces or soups



# Hudson Fish Advisory Outreach

## What Is the Advice: Reducing Chemicals in a Meal



For men and women above 50 who eat Hudson fish

- PCBs build up in the fat and skin of fish
- Removing skin and fat and cooking so fat drips off can cut the PCBs in a meal nearly in half
- Many ethnic groups prefer to use the whole fish

# NYSDOH Hudson Fish Advisory Outreach Program



## Budget

- Total of \$4 million with a twenty year commitment that the program will continue through 2027
- Projected budget of somewhat higher spending in years closer to dredging period

Issued two Requests for Applications for “Minigrants” to establish partnerships with local groups who know about Hudson fish consumption in their community

- 2009 to 2013 – approximately \$60,000 per year in subcontracts to four community partners
- 2014 to present - \$ 90,000 in subcontracts to six community partners

## Staff:

- 2009 to 2011 – 1 full time and 2011 to 2016 – 1.7 full time staff
- 2014 to 16 – part-time seasonal staff, some with Spanish and Chinese language skills

# Current Funded Minigrant Partners

Six minigrant partners:

- Cornell Cooperative Extension (CCE) Dutchess
- CCE Rockland
- CCE Saratoga
- Arm of the Sea Theater (through October 2016)
- Rensselaer Land Trust
- Hudson Sloop Clearwater

Partners table at events and distribute materials, do presentations and classes at schools, do informal surveys on Hudson fish consumption, develop local materials and radio Public Service Announcements

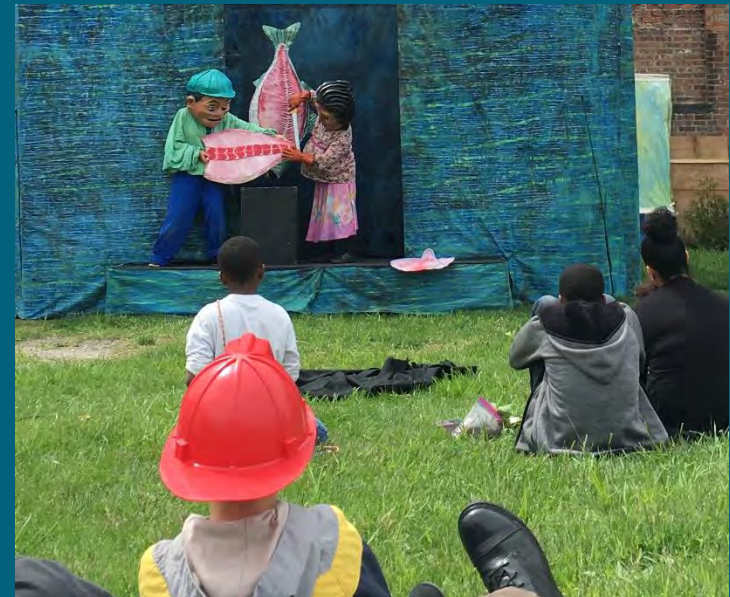


# Minigrant Partner Arm of the Sea Theater

- Arm of the Sea Theater developed “Hook Line and Sinker: Fishing the Hudson River”
- In 2015 the show reached over 3,000 people with project-funded performances



“PCB molecule” and its friend the catfish



Characters demonstrate removing the skin and fat, which reduces PCBs in a Hudson fish meal

# Examples of Making Outreach Materials and Activities More Effective

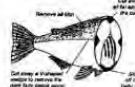
- Develop materials that are more visual, use pictures of fish, tables, maps
- Use positive messaging - what can you eat? Suggest local alternatives to Hudson fish
- Continue to develop strategies for lower literacy audiences and for people for whom English is a second language
- Create interactive learning exercises

**Eating Sport Fish**  
2004-2005 Health Advice for the Capital District, Hudson River, New York Harbor, Fresh Waters of Long Island and Marine Waters of New York

**Why is this fish important to eat?**  
Children eat food to grow up healthy and strong. Most of the food they eat is fish. Fish is one of the best things to eat for your health. It has many vitamins and minerals that help you stay healthy and strong.

**What are the health benefits of eating fish?**  
Fish is a good source of protein, which helps you build strong muscles and bones. It also contains omega-3 fatty acids, which help reduce the risk of heart disease and stroke. Eating fish can also help lower your cholesterol and blood pressure.

**Which fish are safe to eat?**  
Most fish are safe to eat. However, some fish are more likely to contain contaminants than others. Fish that are high in fat, such as salmon, tuna, and mackerel, are more likely to contain contaminants. Fish that are low in fat, such as cod, haddock, and flounder, are less likely to contain contaminants.



**Hudson River between Bakers Falls (in Hudson Falls) and the Federal Dam at Troy:**







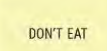







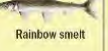



**\*General Health Advisory\***  
For the waters listed below, the general health advice recommendation is:  
• Younger of childbearing age and children under 15 should **EAT NO FISH** from the waters listed below.  
• Other people should follow the recommendations provided for each water listed below and should eat no more than one meal per week of any fish species not listed.

**Hudson River**  
• Eat no more than one meal per month of American eel or white perch.  
• Eat no more than one meal per month of American eel or white perch.

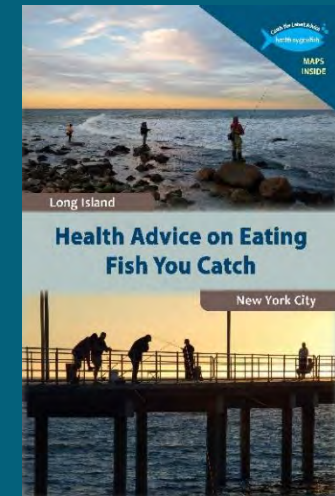
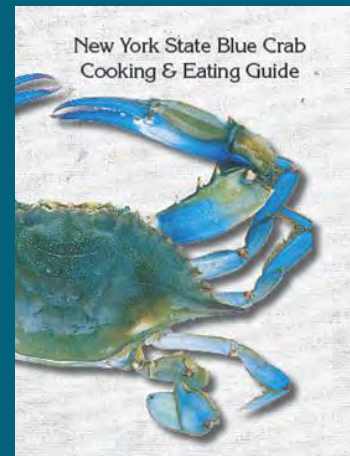
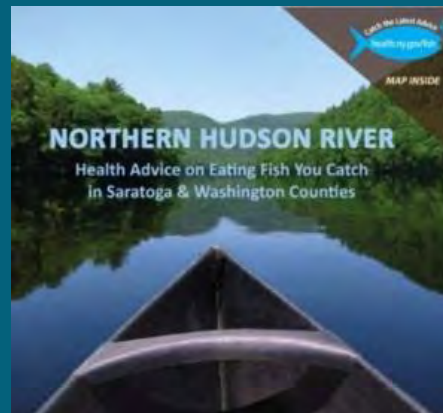
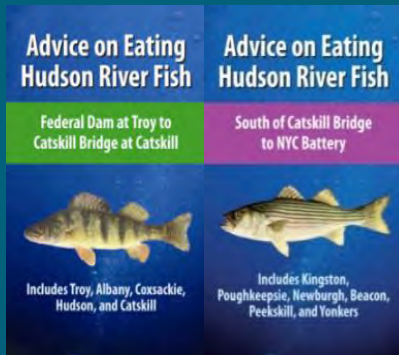
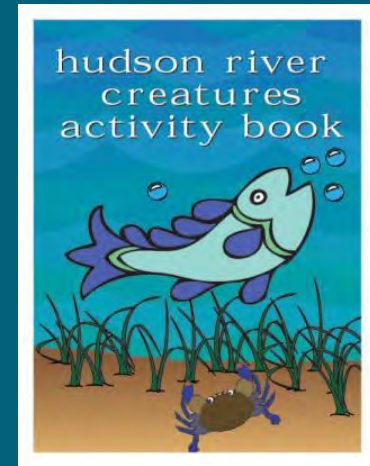
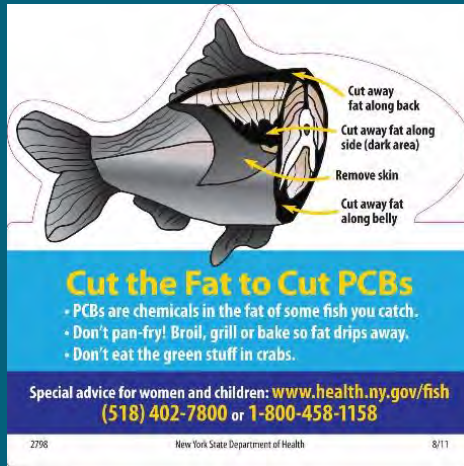
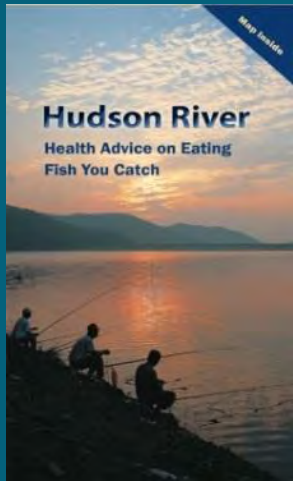
**Other Waters of Long Island**  
• Eat no more than one meal per month of American eel or white perch.  
• Eat no more than one meal per month of American eel or white perch.

**Hudson River and All Tributaries to the First Barrier Impassable by Fish:**  
• Eat no more than one meal per month of American eel or white perch.  
• Eat no more than one meal per month of American eel or white perch.

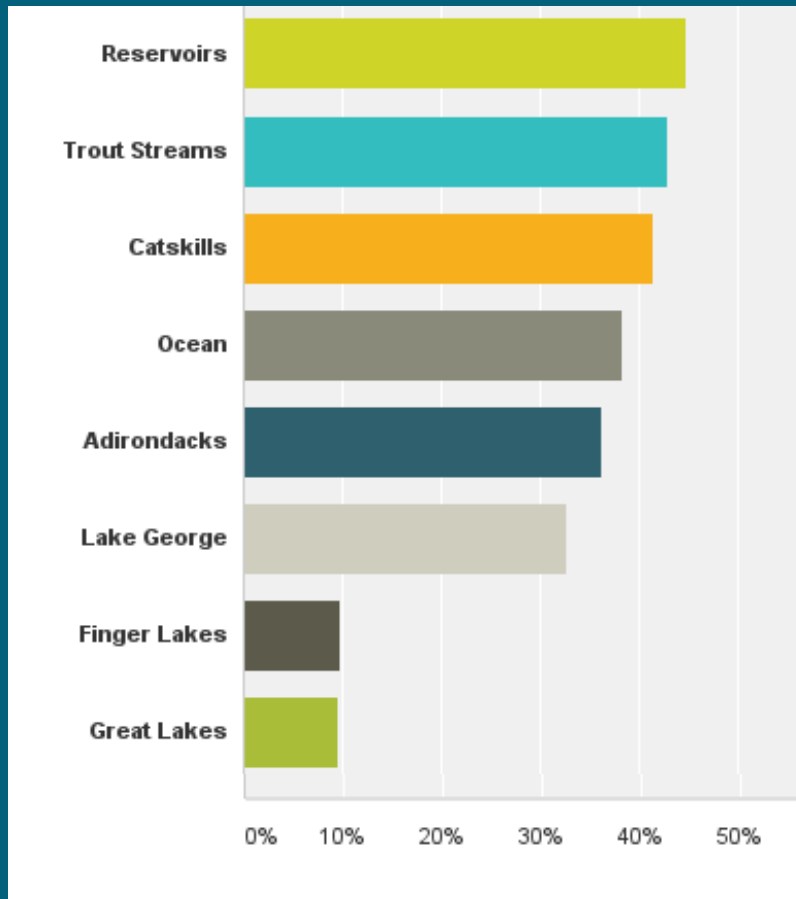


Lower Hudson From Rip Van Winkle Bridge at Catskill to the NYC Battery					 Men over 15 and Women over 50	 Women under 50 and Children under 15
					<b>DON'T EAT</b>	<b>DON'T EAT</b>
<i>*DEC regulations prohibit taking American eel for food from the Hudson River</i>						
					<b>Up to 1 meal/month</b>	<b>DON'T EAT</b>
						
						
	<b>Blue crab</b>				<b>Up to 6 crabs/week</b>	<b>DON'T EAT</b>
<b>Do not eat the tomalley (green stuff, mustard) or reuse cooking water</b>						
<b>All other species</b>					<b>Up to 4 meals/month</b>	<b>DON'T EAT</b>

# Free Hudson River Fish Advisory Materials



# Many People Who Fish the Hudson Fish River Also Fish in Other Water Bodies



- NYSDOH does short convenience-sample surveys about Hudson fish consumption at events. We ask “Besides the Hudson, What Other Places in New York Do You Fish?”
- Many people who fish the Hudson also fish in other water bodies. We want to encourage families who want to eat fish to eat it from waters that are healthier choices.

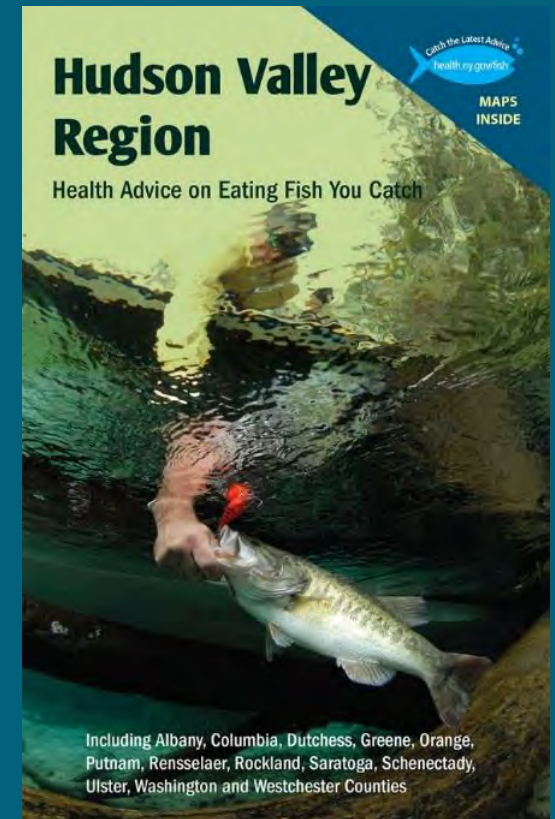


# Newest Brochure

- Positive messaging to encourage following the advice - suggest where a family can eat fish as healthier alternatives

## 2015 - Hudson Valley Region

- Has advice for all waters in 13 Hudson counties
- Also includes a list of waters with DEC access where the family can eat fish
- In English, Spanish and Chinese
- Over 4,000 distributed in 2016



# Collaboration on Educational Materials






Materials are distributed by outreach staff and migrant partners, community organizations, municipalities and other entities that sell fishing licenses


- Work with audiences and partners to refine materials
- Gil Hawkins of the Hudson River Fisherman's Association suggested "including striped bass" for the Hudson River brochure
- Asian Community Unity Society representative suggested we use pictures of fish with names in English
- New York State Department of Environmental Conservation (NYSDEC) summarizes NYS advice in freshwater fishing regulations guide

**Mid Hudson**  
From Troy Dam to Bridge at Catskill

Eat up to one meal a month:

 Alewife	 Rock bass
 Blueback herring	 Yellow perch

**Do not eat other fish from the Mid Hudson including striped bass**



# Hudson River Fish Advisory Signs



- NYSDOH developed signs with focus groups that has a stronger message for Catskill to Troy
- Signs are in English, Spanish, and Chinese
- Posting signs is voluntary on the part of property owners
- Signs require maintenance – are frequently damaged or removed
- In 2013, NYSDOH began annual inspections of riverfront fishing access south of Troy
- Followed up by letter and phone with property owners
- Mailed out over 400 signs for posting at about 90 locations in 10 counties
- Since 2015, of 33 property owners, 24 agreed to 113 new signs

## WARNING!

Fish and crabs from these waters contain chemicals and may be harmful to eat, especially for women and children.



### Learn more!

Call NYS Department of Health  
518-402-7800  
800-458-1158

## NOTICE!

Some fish and crabs from these waters may be harmful to eat.



### Learn more!

Call NYS Department of Health  
518-402-7800  
800-458-1158

# Outreach Venues and Partners



To reach people who fish and their families, DOH staff do presentations and table at a range of events - 20+ field days each year (58 in 2015)

- County fairs
- Community and ethnic festivals
- Fishing and hunting shows
- Fishing organizations
- Boating associations
- Neighborhood associations
- Headstart and WIC clinics

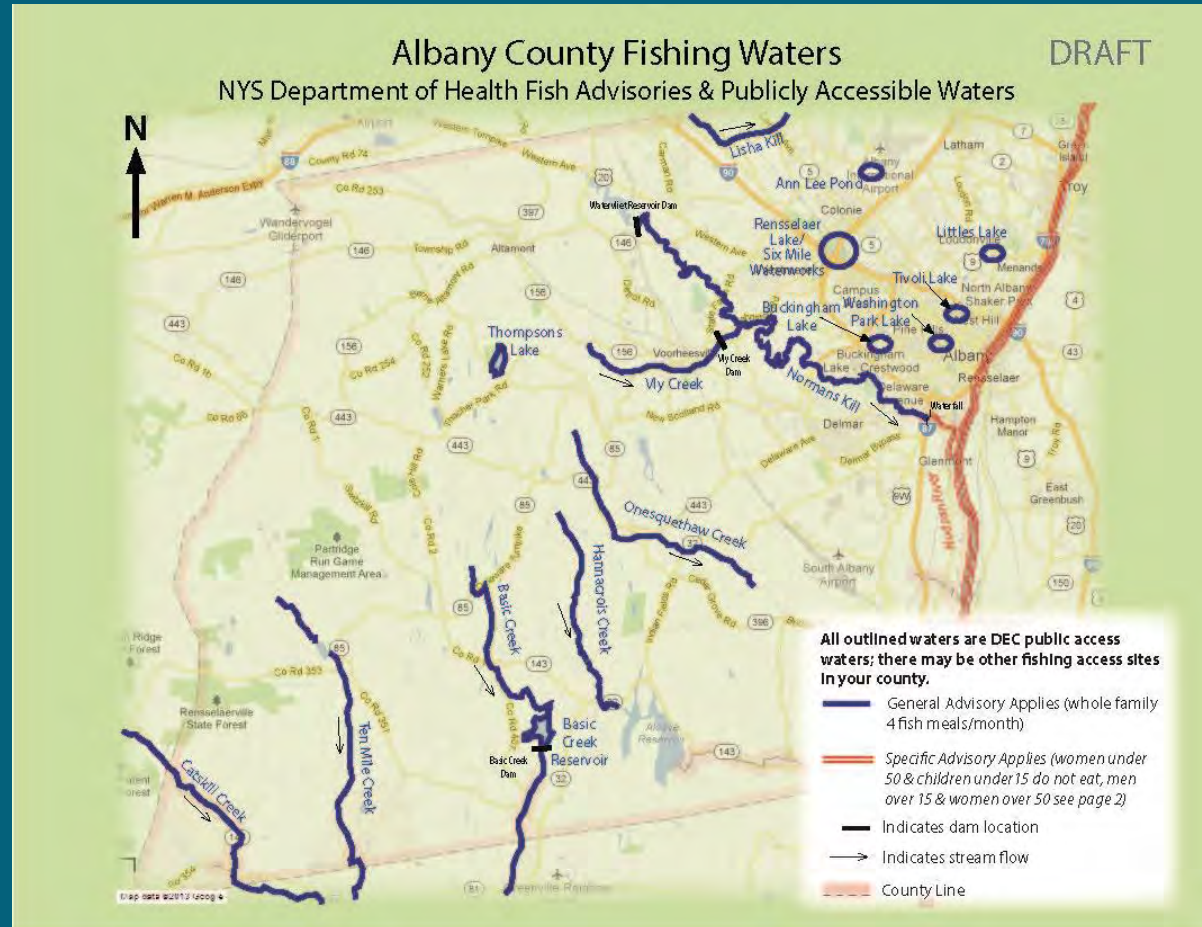


Network with local organizations at events

We have been in all 13 counties of the project area and most major cities, but focus heavily on the Capital District as fish there are most highly contaminated that can be legally eaten

# Maps Help People Make Better Choices

- Women and children should not eat fish from the Hudson
- For many Hudson counties, the whole family can eat fish up to four times a month from many other local waters (blue waters)
- Hope to get maps online in 2017



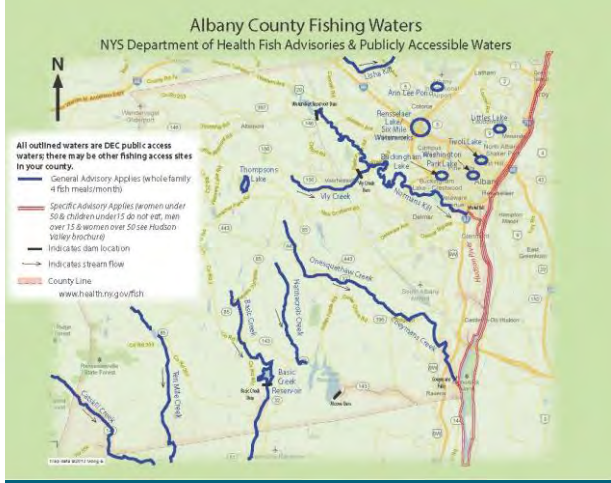


RAINBOW TROUT  
I was caught in **Six Mile Works**.  
I'm a good choice for the whole family to eat!



SMALLMOUTH BASS  
was caught in **Tomhannock Reservoir**.  
I'm a good choice for the whole family to eat!

# Interactive "Go Fish" Game for Tabling



## Hudson Valley Go Fish Quick ID Sheet



Can you keep your fish or should you throw it back?

**Red Waters**  
Families should avoid eating fish from waters in red.  
Throw it back!

**Blue Waters**  
Fish from blue waters are a good choice for the whole family. You can keep your fish!

Children take home a paper fish from the good (blue) waters

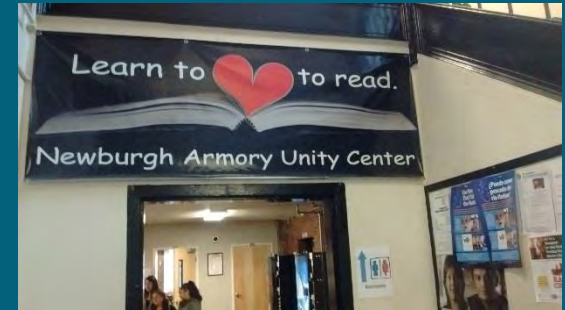
# Outreach to Immigrants



- Often are less aware of contamination
- Need to rely on community partners to identify and connect
- Cultural practices – may eat whole fish, fatty species like catfish, make fish paste, eat crab tomalley (mustard)
- Some newcomers eat substantially more local fish - in a NYSDOH study in Buffalo, people from Burma ate five times (102 locally-caught fish meals per year) as much fish as licensed anglers ate

# Outreach to Immigrants

- Language and literacy barriers - develop and use different strategies
- Have partnered with organizations who work with agricultural and other immigrant workers
- In 2016 we focused on Newburgh, where we are lucky to work with Latinos Unidos of the Hudson Valley
- CCE Rockland is partnering with the Rockland Immigration Coalition
- Made connections with the Spanish speaking community in Dutchess County for spring 2017
- Are collaborating with “Refugee Roundtable” volunteers who are connected to the refugee community in Albany to reach out through churches





# Karen Community “Photovoice” Project

- In 2015, NYSDOH and Karen youth participated in a project in which the youth took pictures of “Our Healthy Foods from Around the World at Home”.
- The Tomhannock reservoir is a water body in Rensselaer County where families can eat fish up to four times a month.

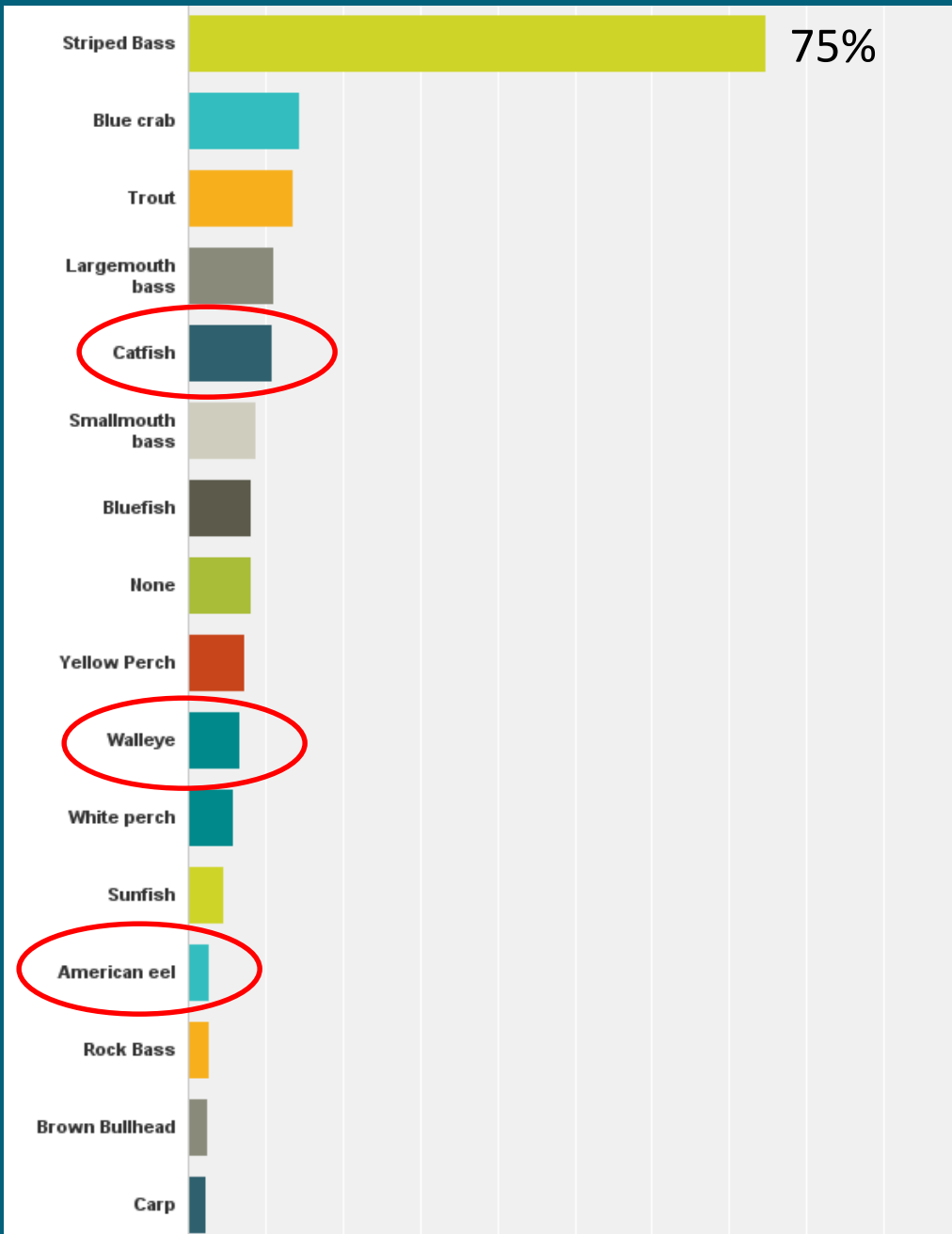


*Food in the Water. Food in the Pot:*  
Fish is good. This dish has fish, olives, turmeric and paprika. The Karen men caught the fish in the Tomhannock Reservoir. (Saw Shi)



*Single Fish:*  
My cousin and I went fishing on the Tomhannock Reservoir and he caught this fish. We ate it for dinner. My mom fried it in a pan. (Lay Doh Say)

# NYSDOH Hudson Fish Consumption (460)



What fish do you most frequently eat from the Hudson? (all that apply)

NYSDOH advises on one should eat Hudson catfish, (as of 2016) walleye and eel

Many people feel striped bass are “ocean fish” and do not know, or do not agree, that they should not eat them from Troy to Catskill

There are no alternative local waters for striped bass, as there is for catfish and walleye

# Increasing Understanding about Contamination in Striped Bass to Encourage Following the Advice



## Can you eat that fish from the Hudson?

The Hudson River has many sought after fish, but none as coveted as the mighty striped bass. Striped bass are long-lived fish that can reach lengths of greater than 45 inches and are prized by anglers for their feisty nature and delicious taste.

Most anglers know that striped bass spend part of their time at sea and part of their time in tidal tributaries like the Hudson River. But many anglers are not aware that the New York State Department of Health (NYSDOH) advisory for Hudson River fish includes striped bass.

Striped bass migrate but still accumulate PCBs (polychlorinated biphenyls). The NY State Department of Environmental Conservation samples many striped bass from Troy to the GW Bridge (NYC) every year to monitor PCB levels in fish. While many striped bass have low levels of PCBs, some have levels higher than the FDA marketplace standard of 2 ppm.

Fish caught between the Federal Dam at Troy and the Rip Van Winkle Bridge at Catskill are more likely to contain high levels of PCBs than fish caught south of Catskill. New tagging studies (David Secor, University of Maryland) show some striped bass stay in the River longer than previously thought, allowing more time for PCBs to build up. Follow up studies are planned.

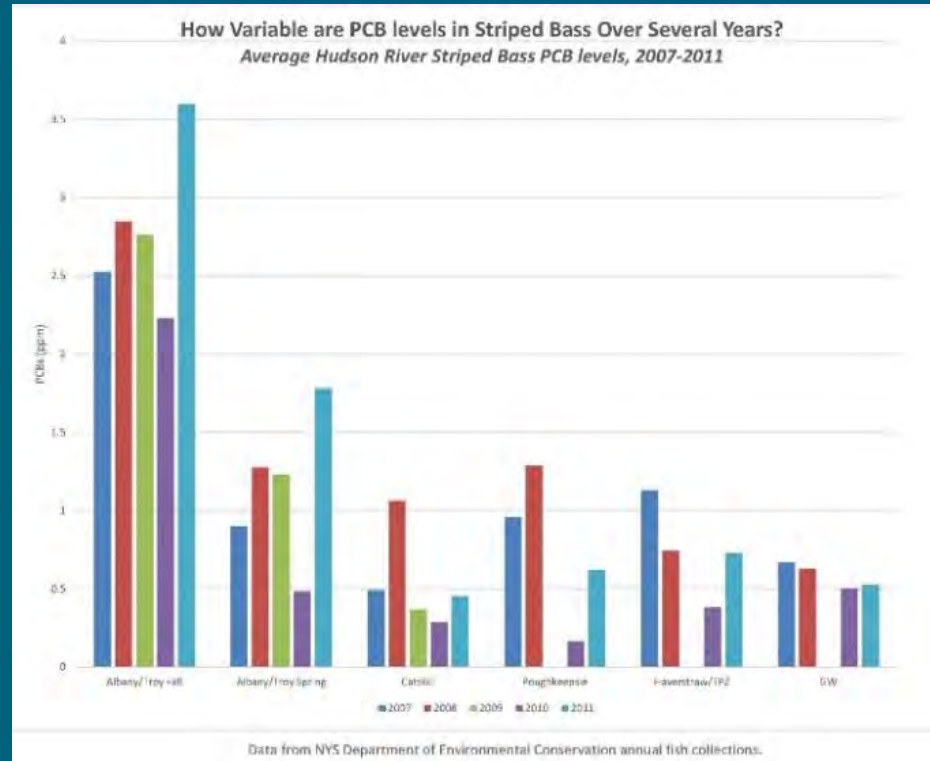
Striped bass are by far the most popular fish consumed from the Hudson River. When surveyed, nearly 50% of anglers say they eat striped bass from the River at least a few times a year. We urge all anglers and their families to know and follow the advice for striped bass:

**Between the Federal Dam at Troy and the Rip Van Winkle Bridge at Catskill:**  
Everyone - don't eat striped bass, practice catch & release fishing.

**Between the Rip Van Winkle Bridge at Catskill and the NYC Battery:**  
Men over 15 and Women over 50 - eat up to 1 meal/month of striped bass.

Women under 50 and children under 15 - don't eat, practice catch & release fishing.

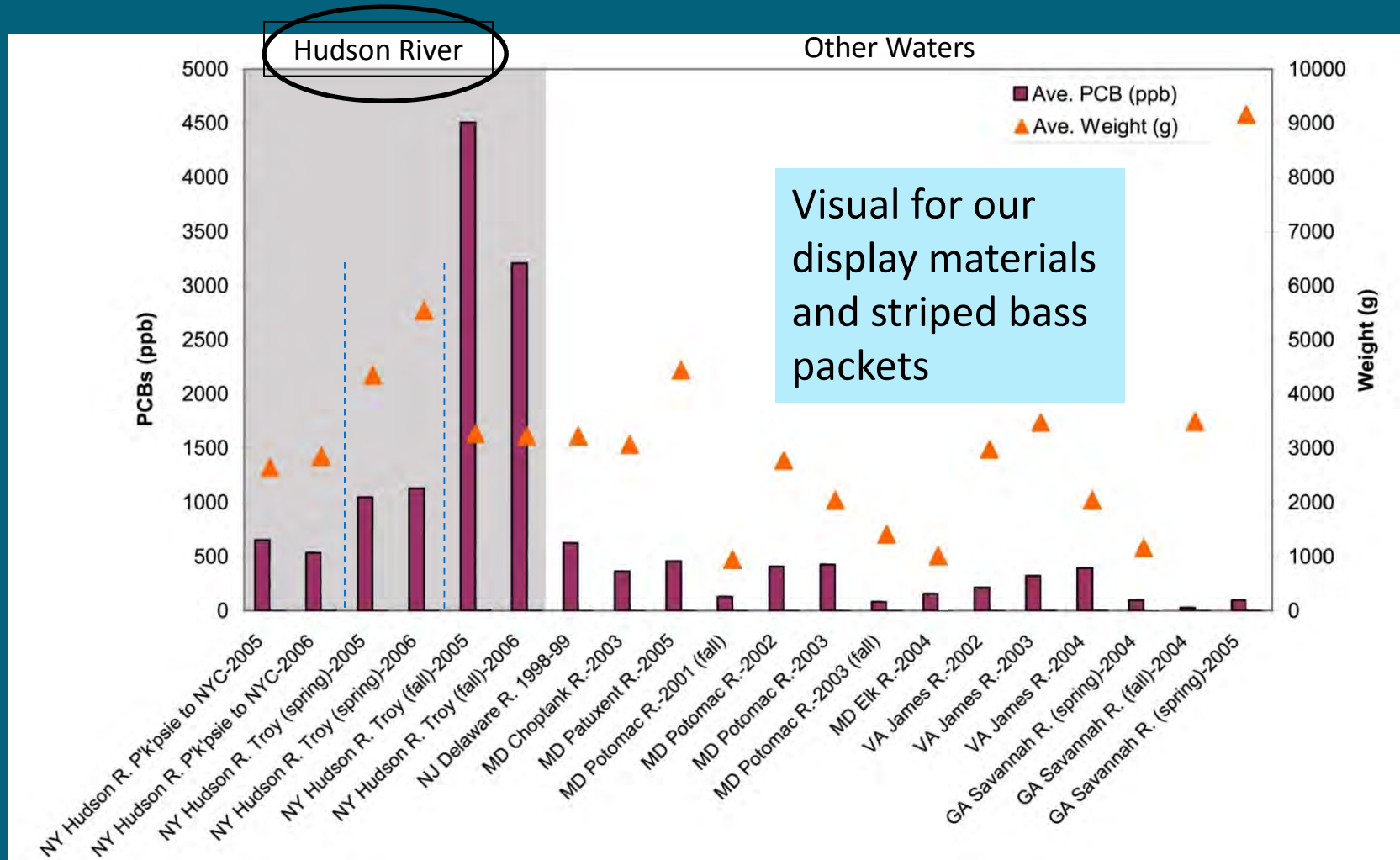
This packet contains more information specifically about striped bass - included are graphs of striped bass PCB levels, summary slides of new research being done on striped bass tagging and migration studies, and an age to length chart.



In 2016 we began to provide information packets about Hudson striped bass PCB contamination and migration to people interested in knowing more

# PCBs in Striped Bass

## In the Hudson River vs. other East Coast Rivers



Report of the Interstate Workgroup on Evaluating Atlantic Coastal Advisories for Recreationally Caught Striped Bass and Bluefish based on PCBs – 10/1/2008

# NYSDOH and Hudson River Fish Advisory Minigrant Partner Surveys

NYSDOH and partner surveys meet two important outreach goals:

- Education - local fish eaters receive fish advisory materials after survey
- Information collected helps our program target resources



# NYSDOH and Hudson River Fish Advisory Minigrant Partner Surveys

## Survey limitations:

- All are self-report
- CCE surveys are collected at a variety of community locations, but respondents are not selected to statistically represent Hudson Valley residents
- NYSDOH surveys reflect the people at the events we attend
- Surveys reflect bias of who chooses to participate

# NYSDOH and Hudson River Fish Advisory Minigrant Partner Surveys

Survey limitations continued:

- Surveys are very short to encourage participation
  - we do not collect information on how much of each species is consumed or how each type of fish is prepared
- People do not answer every question and in upcoming slides we present results for the number of people who answered the question, may be slightly different from the total responses

# CCE Dutchess Partners

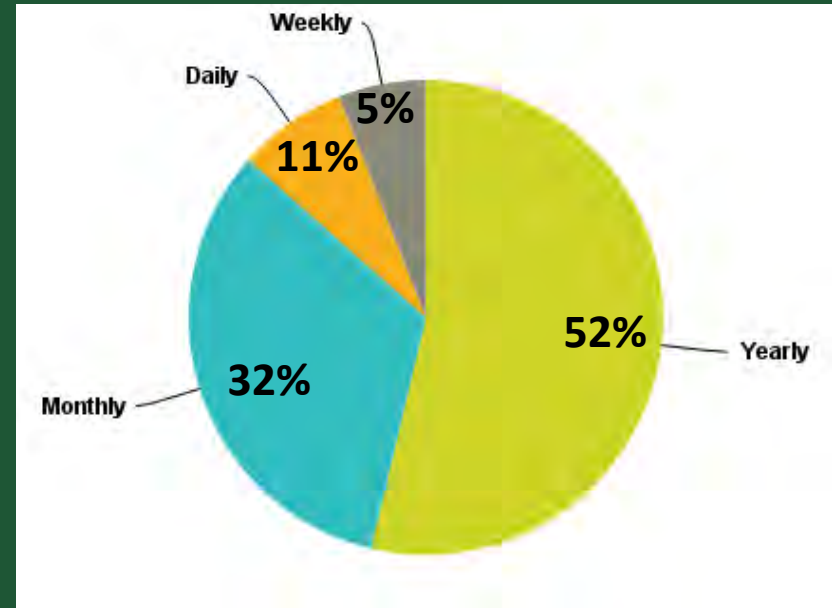
## Local Fish Consumption Surveys

- Since 2012, CCE Dutchess has coordinated local fish consumption surveys from Dutchess, Columbia, Greene, Orange and Ulster counties
- Surveys are collected at food banks, low income daycare centers, clinics, and other sites used to recruit nutrition program clients
- 75% of respondents are women and 72% are under 55
- 23% black, 23% Hispanic/Latino



## CCE Dutchess Partners Local Fish Consumers

- 1338 surveys
- 17% report they ate fish or crabs they or someone they knew caught from a local water (232)
- Over half of local fish eaters ate fish or crabs from the Hudson – about 10% of all respondents (136)
- 46% of Hudson fish consumers were aware of the advice



How Often Do You Eat  
Locally Caught Fish?

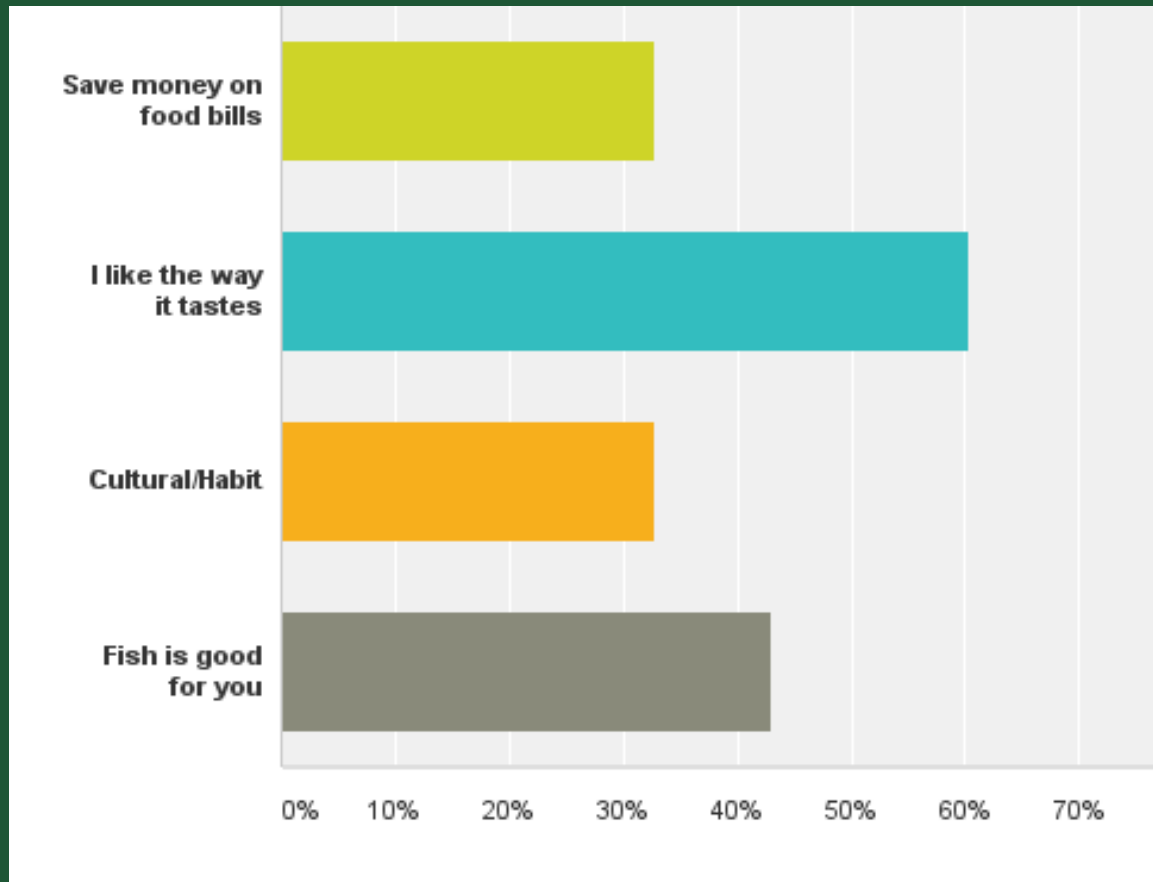
# CCE Dutchess Partners Hudson Fish Consumers

Number	Eating Hudson Fish	Eating Hudson Crabs	Eating Hudson Fish or Crabs
Respondents	72	64	136
Women under 55	29	20	49

1338 surveys

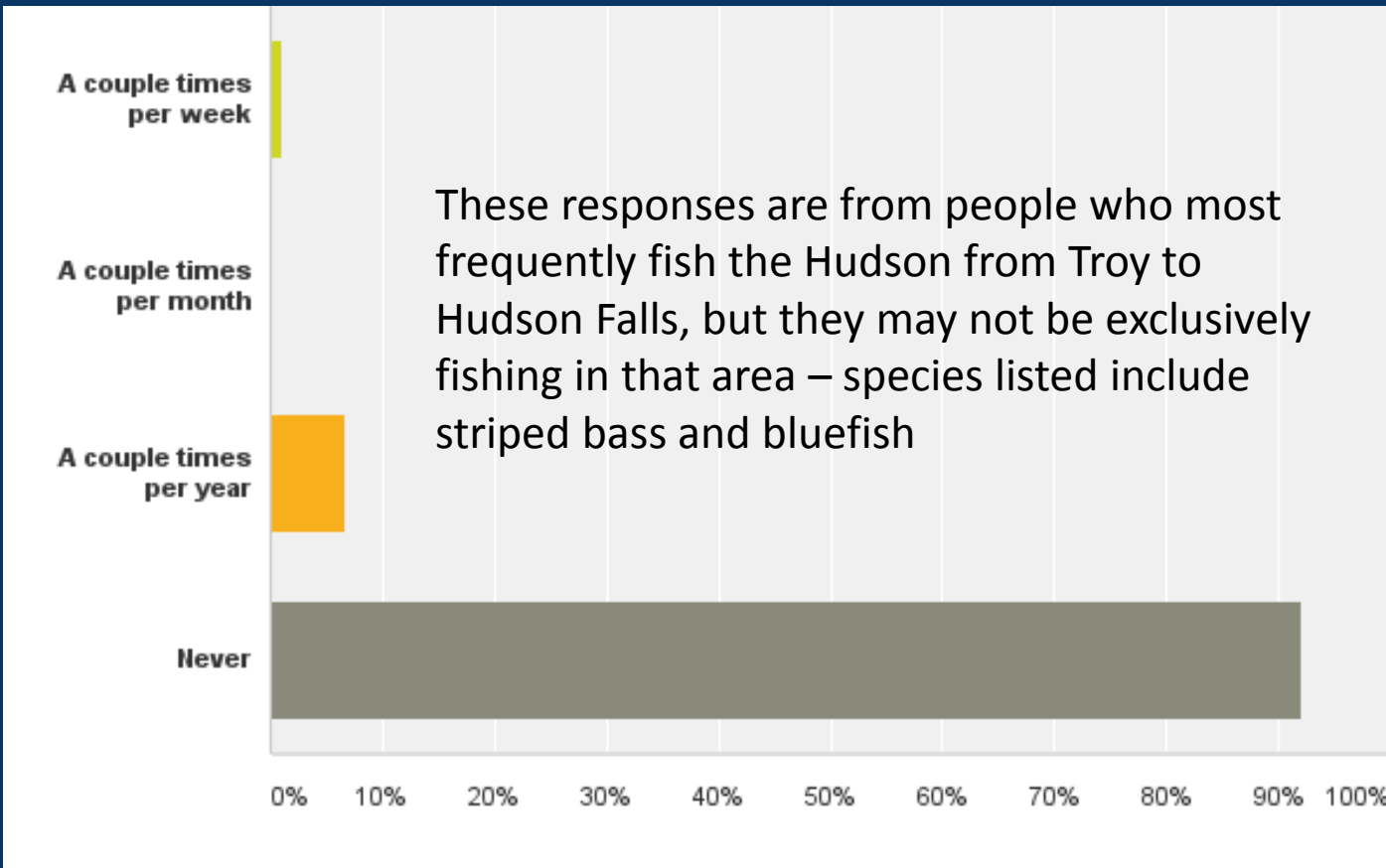
- 29 respondents reported their children under 15 ate Hudson fish

# CCE Dutchess Partners Hudson Fish Consumers



Responses from people eating Hudson fish to “What are the best reasons for eating fish or crabs that you catch? (check all that apply)”

# CCE Saratoga Partner Hudson Fish Consumption Troy to Hudson Falls



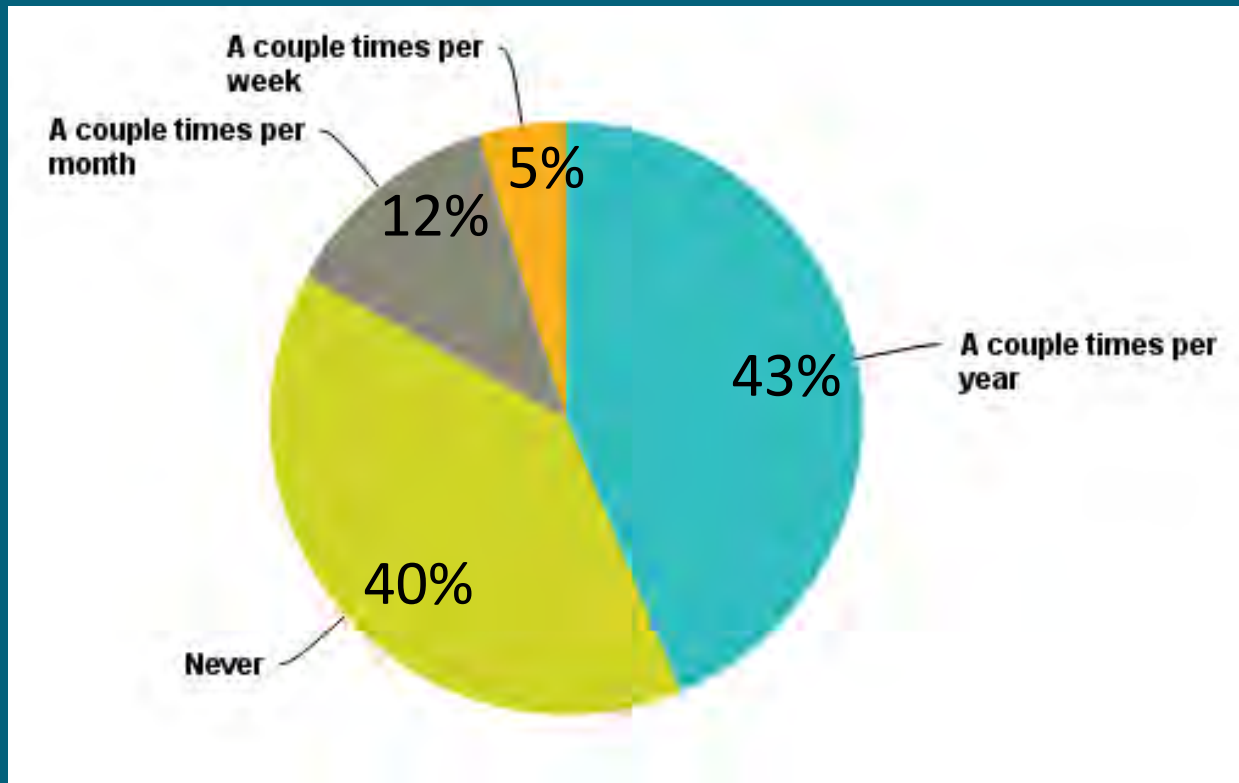
How often  
do you eat  
Hudson  
fish?  
(107)

# NYSDOH Hudson Fish Consumption Survey



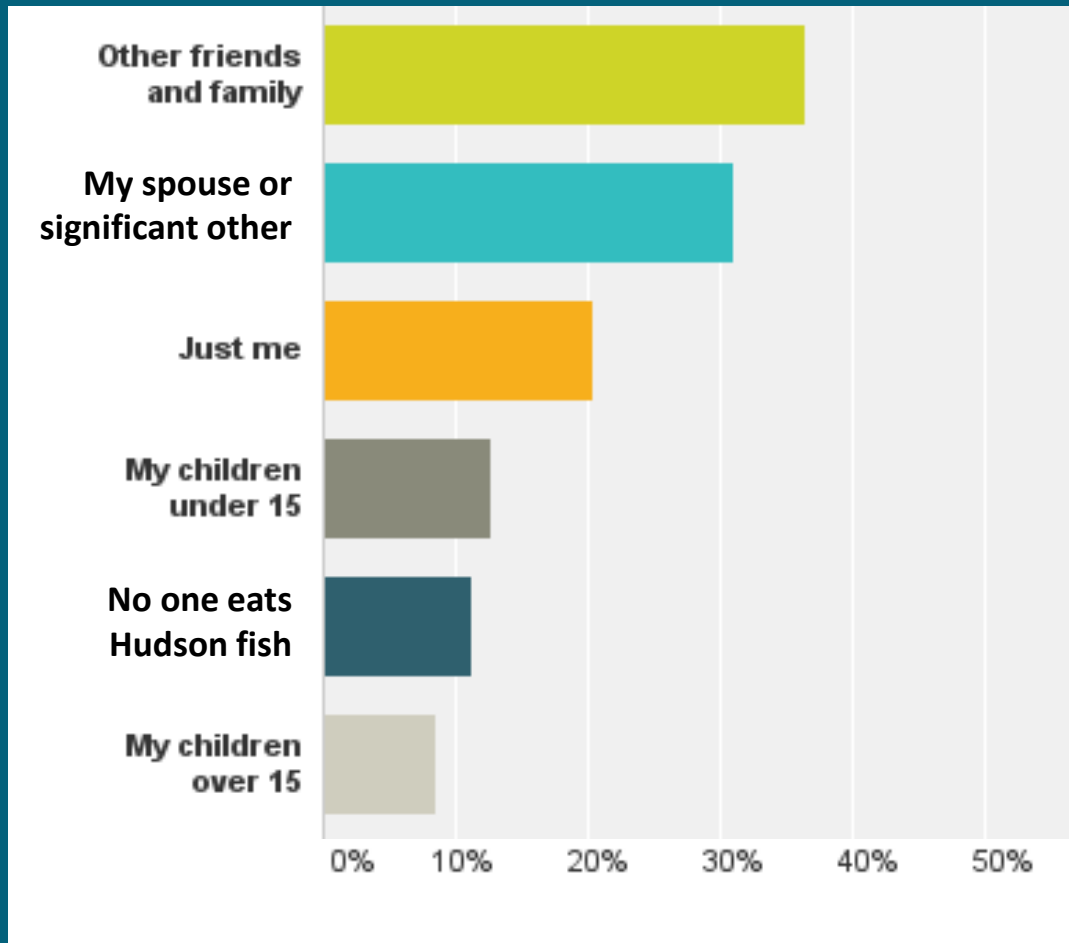
- 786 “convenience” samples – one page surveys done since 2013 at outreach events NYSDOH staff attend in the Hudson Valley from Saratoga to NYC
- All respondents fish on the Hudson River
- 85% male, 82% white, 7% African American, 6% Hispanic/Latino, 42% over 50
- 50% fish most frequently from Catskill to the Tappan Zee
- About 460 report they ate Hudson fish and 168 ate crabs

# NYSDOH How Often Do You Eat Hudson Fish (All 786 Respondents)



40% of respondents say they practice catch and release

# NYSDOH Who Else Eats Hudson Fish? (460 Hudson Fish Consumers)

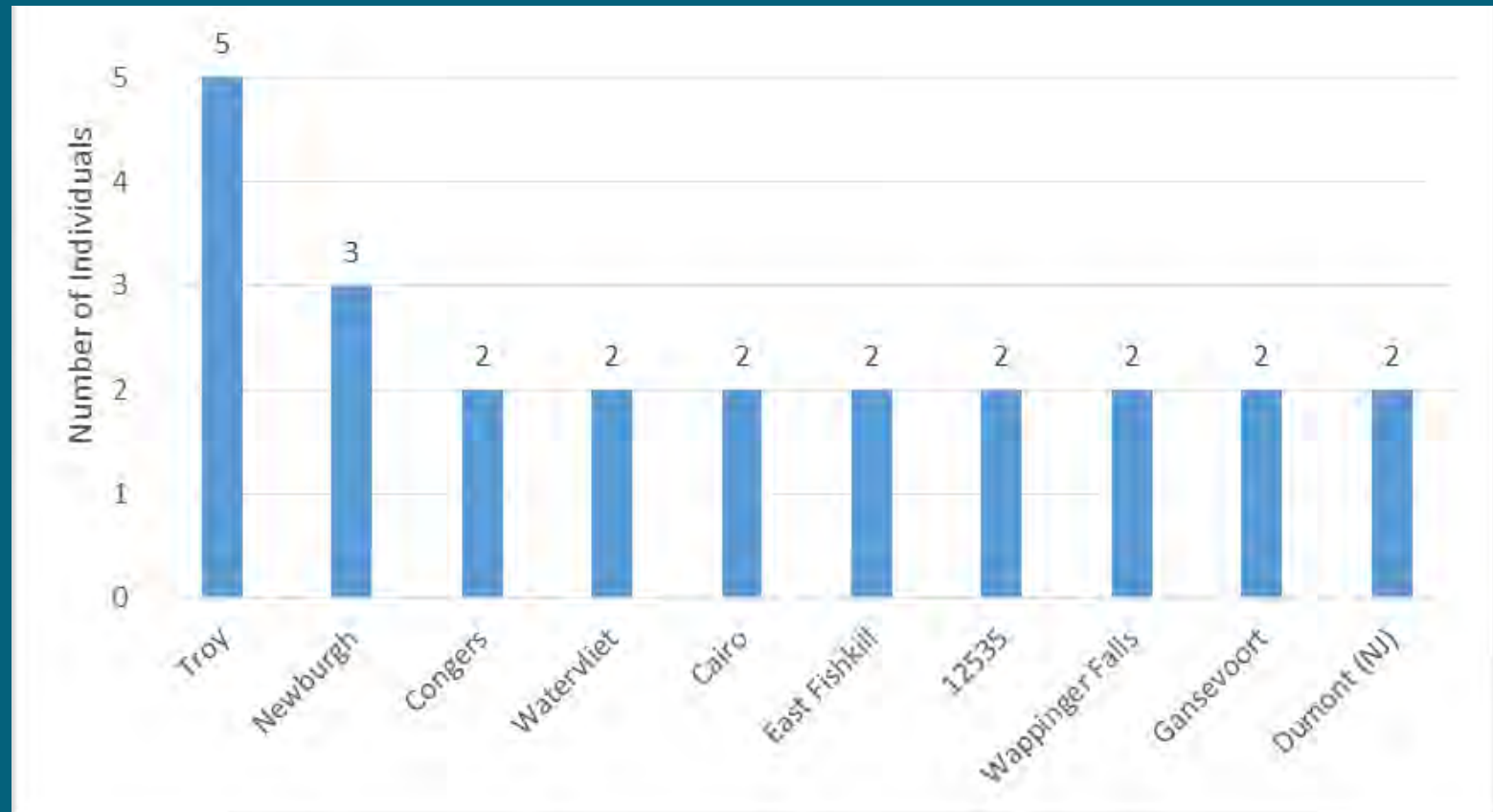


Sharing is common

Sharing with children under 15 is a concern (58)

24 women under 50 reported eating Hudson fish

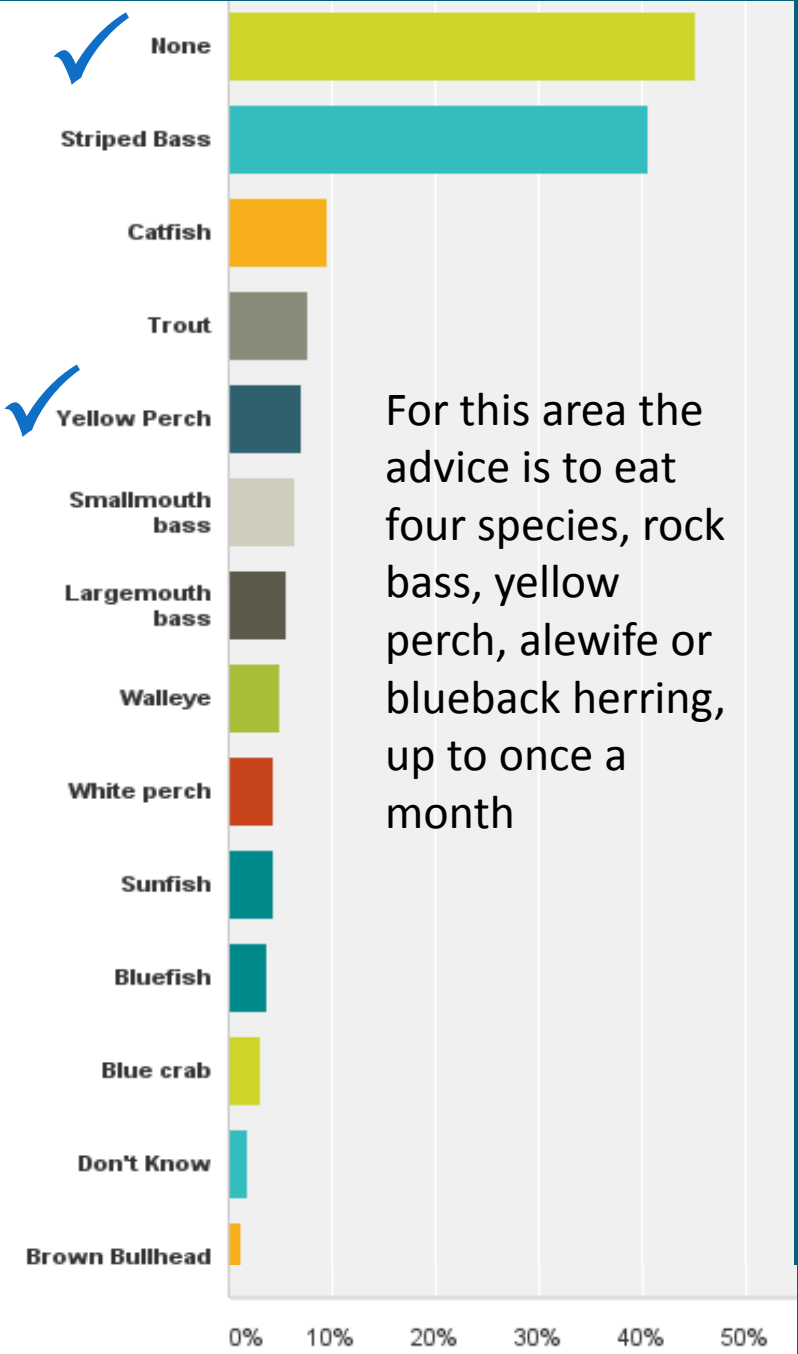
# NYSDOH: 10 Locations With Women under 50 Eating Hudson Fish or Crabs (Residence Zip Code) (24)





# Fish Consumed Troy to Catskill (186)

- Most fish consumption from Troy to Catskill is not consistent with the NYSDOH advice



For this area the advice is to eat four species, rock bass, yellow perch, alewife or blueback herring, up to once a month

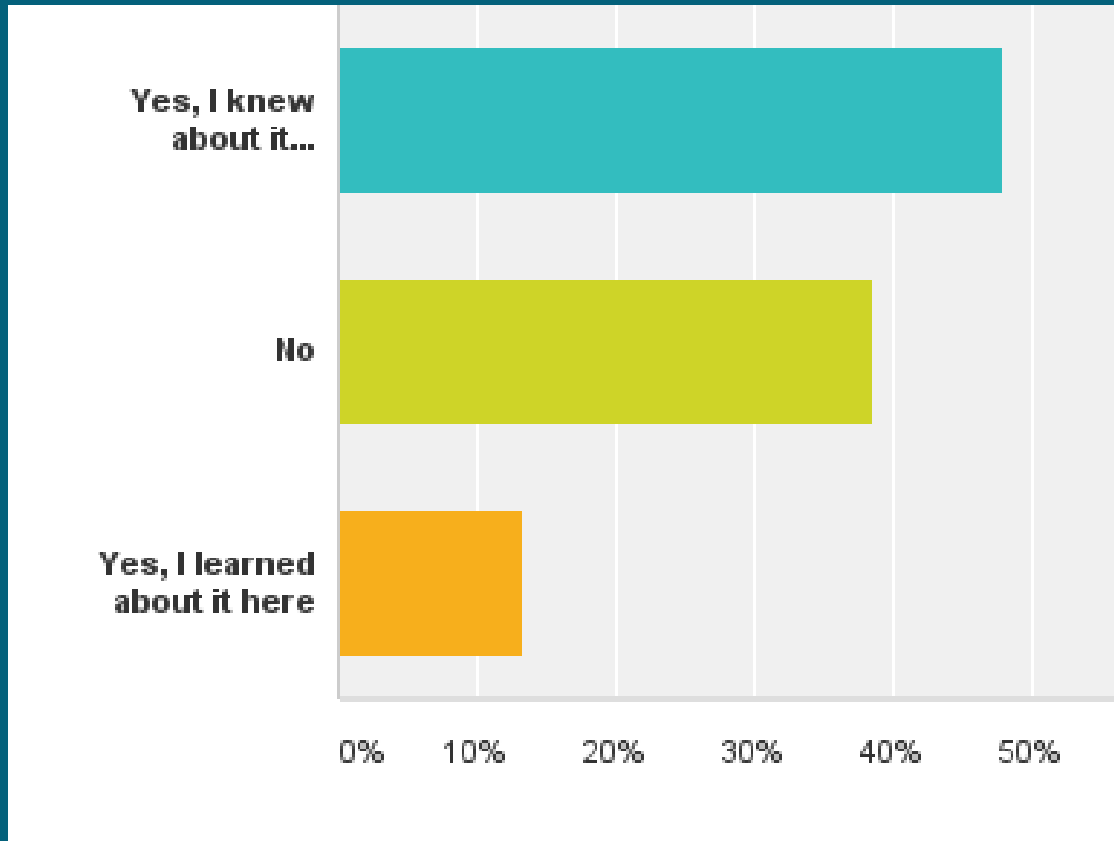
**Mid Hudson**  
From Troy Dam to Bridge at Catskill

Eat up to one meal a month:

 Alewife	 Rock bass
 Blueback herring	 Yellow perch

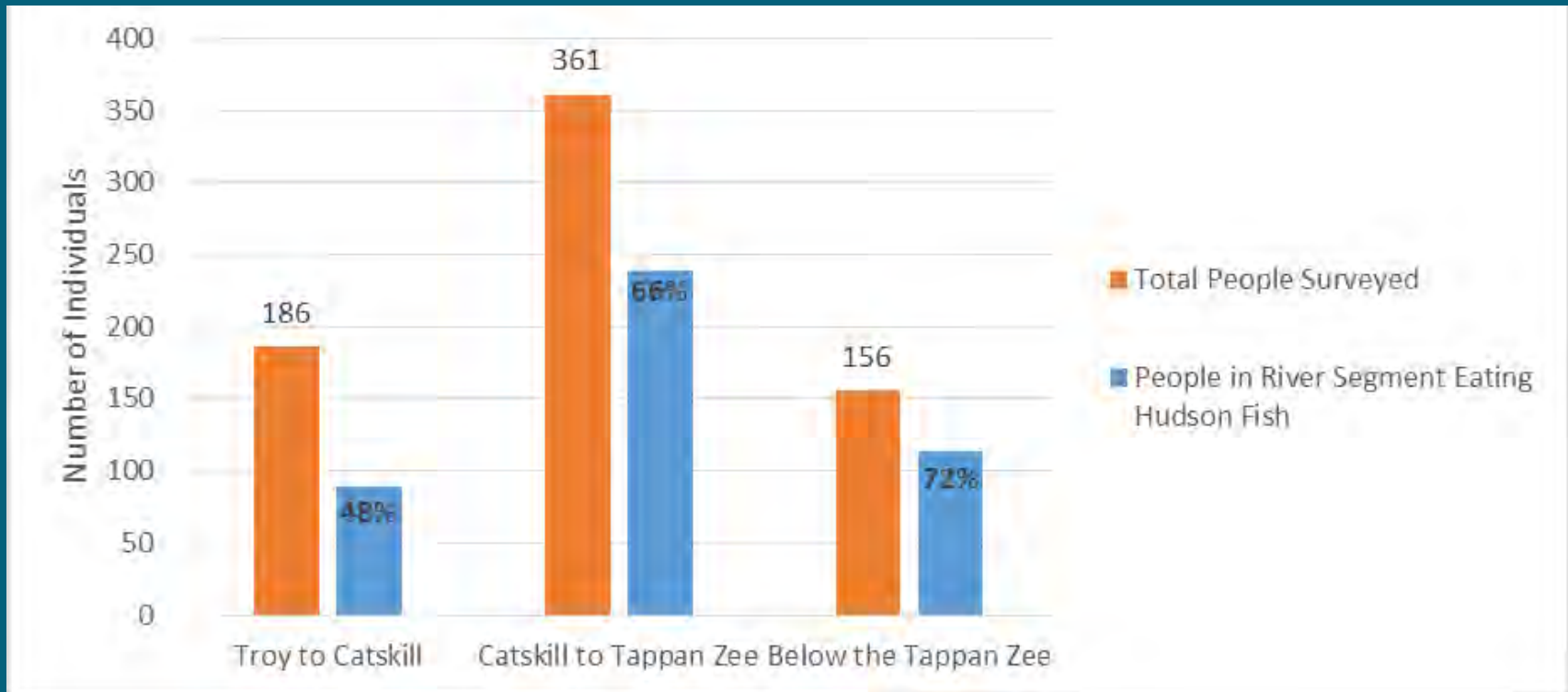
**Do not eat other fish from the Mid Hudson including striped bass**

# NYSDOH Awareness of Advice (460 Hudson Fish Consumers)



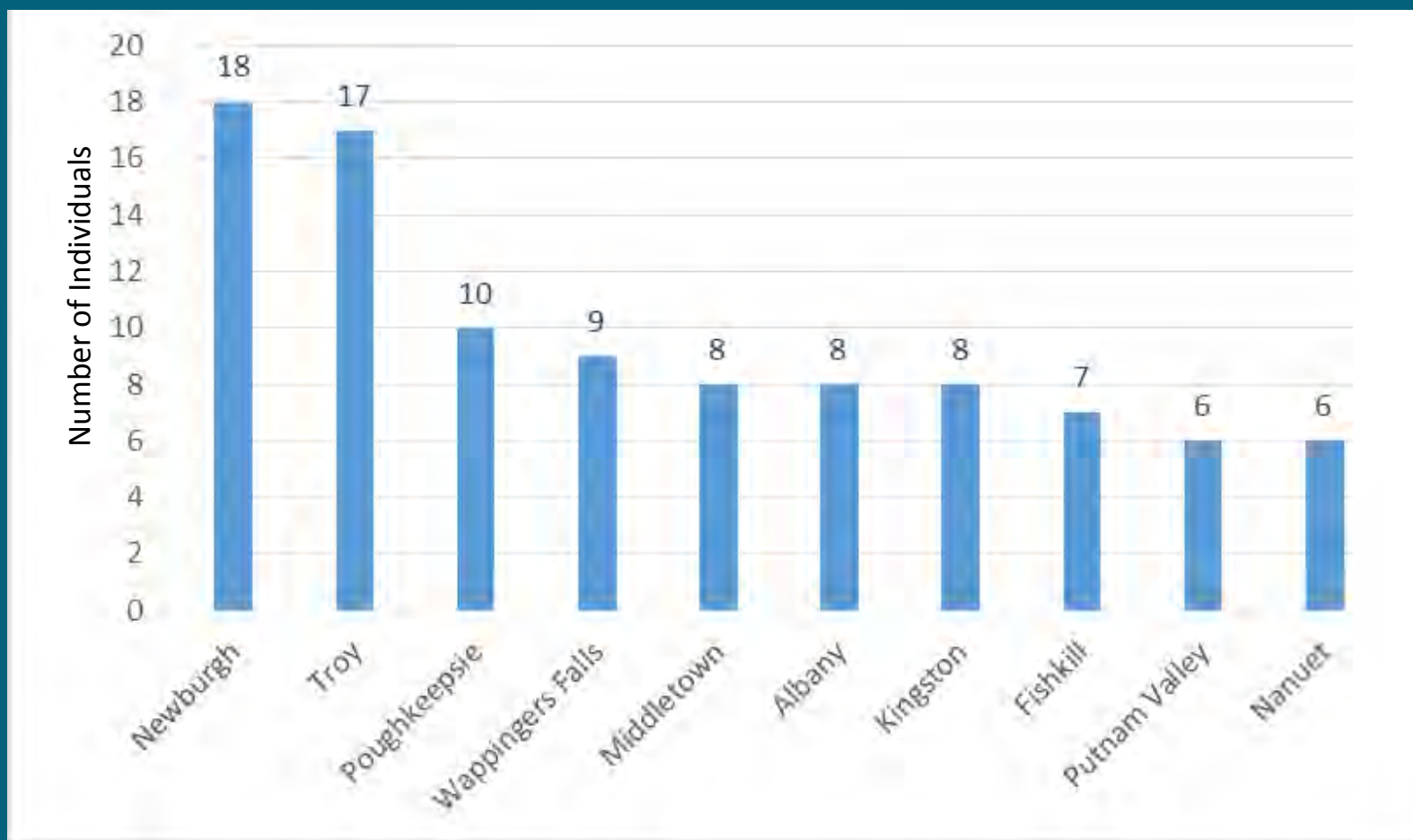
Many Hudson fish consumers report they do not know the advice

# NYSDOH Percentage of People Eating Hudson Fish Varies Along the River



Fewer people report eating Hudson fish from Troy to Catskill

# NYSDOH: 10 Locations With Largest Number of People Eating Hudson Fish or Crabs (Residence Zip Code)



# NYSDOH Follow-up: What Do You Remember from Reading Materials or Talking to NYSDOH?

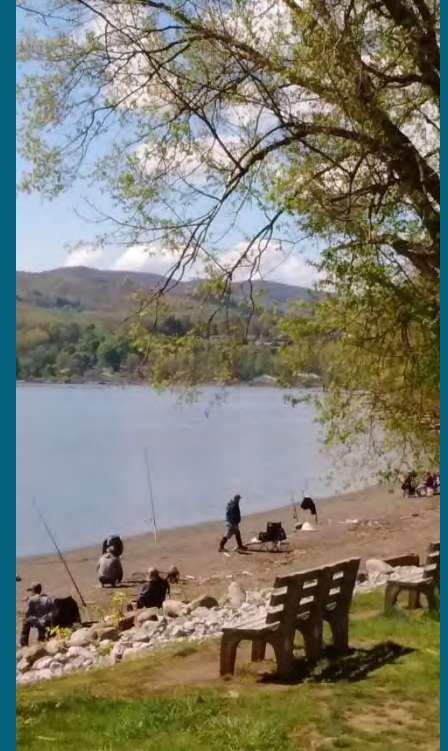
Response (all that apply) – I remember	Percentage (N=24)
PCBs stay in the fat and skin of fish	70%
Striped bass have chemicals like other fish in the Hudson	48%
Making a fillet and baking or grilling fish can cut down PCBs in a fish meal	43%
The NYSDOH advice around Albany and Troy is to not eat most fish	30%
The graph with PCB levels in striped bass	22%

Response (all that apply)	Percentage (N=24)
No one	8%
My family	54%
A friend	21%
More than one friend	54%

Who Did You Share the Information With?

# Moving Forward

- Invite partners who connect with the Hudson fishing community to join us!
- Reinforce that contamination levels in fish will take a long time to drop after the dredging
- Reinforce the advice for the Capital District and that the advice applies to striped bass
- Create more connections to immigrant communities and use ethnic media to promote the advice
- Seek more information on minority community consumption
- Try to learn more about Hudson fish consumption in NYC



For more information:

[www.health.ny.gov/hudsonriverfish](http://www.health.ny.gov/hudsonriverfish)

[http://www.health.ny.gov/environmental/outdoors/fish/hudson\\_river/advisory\\_outreach\\_project/hrfa@health.ny.gov](http://www.health.ny.gov/environmental/outdoors/fish/hudson_river/advisory_outreach_project/hrfa@health.ny.gov) or [regina.keenan@health.ny.gov](mailto:regina.keenan@health.ny.gov) or 518-402-7530

*Draft*

# **Third Five-Year Review Report for the Hudson River PCBs Superfund Site**

## **APPENDIX 8**

### **ATTACHMENT A**

#### **NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) HUDSON RIVER PCBs SUPERFUND SITE COMMUNITY ADVISORY GROUP PRESENTATIONS**

**June 3, 2021 NYSDOH Hudson River Fish Advisory Outreach Update**



Department  
of Health

New York State Department of Health

# Hudson River Fish Advisory Outreach

A detailed illustration of a striped bass fish, shown in profile facing left. The fish has a greenish-blue head and back, with prominent white and black vertical stripes along its body. It is positioned above a dark teal wavy line representing water.

Can you eat that fish from the Hudson River? [www.health.ny.gov/fish](http://www.health.ny.gov/fish)

A small logo for the New York State Department of Health, featuring the words "NEW YORK" in a bold font above "state department of" in a smaller font, and "HEALTH" in a bold font below, all within a dark rectangular border.

# NYS DOH Hudson River Fish Advisory Outreach Program Update

Hudson River PCBs Superfund CAG, June 3, 2021



# Agenda

- About the program
- What is the advice
- Key Program Deliverables:
  - Free materials and key outreach tools
  - Hudson River fish advisory sign program
  - Outreach to newcomers
  - Consumption surveys and what we've learned
  - Special outreach to striped bass anglers



# About the Program

# Hudson River Fish Advisory Outreach Project

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- Goal: Everyone eating Hudson River fish knows, understands and follows the New York State Department of Health (NYS DOH) advice on fish consumption for 192 miles from Hudson Falls to NYC
  - Commitment of 20 years through 2027
  - Focus on community partnerships
- 





# Hudson River Fish Advisory Outreach Project Activities



Identify and support partners who can develop and administer fish advisory outreach programs



Work with property owners to get signs posted at major fishing access sites



Evaluate outreach efforts to determine which ones are working and what barriers exist



Incorporate emerging health education methods into outreach efforts



Implement culturally appropriate strategies to encourage people to follow the advisories

# NYS DOH Outreach

NYS DOH staff do presentations and table at a range of events – 20-40 field days each year (many more when partners factored in)

- County fairs & community festivals
- Fishing and hunting shows
- Fishing & boating organizations
- Faith-based and neighborhood associations
- Food pantries
- ENL and GED classes

Staff attend events in all 13 counties.

Outreach key in Capital District where fish are more contaminated and can legally be kept (vs. upstream of Federal Dam -catch and release only).



# Partners

- Have issued two Requests for Applications for \$15,000 a year, per partner, since 2009
- 2009 to 2013 –subcontracts awarded to four community partners (\$60,000 total annually)
- 2014 to 2019 + 2 year extension (2021) - subcontracts awarded to six community partners (\$90,000 total annually)



# Current Funded Partners

Six funded partners:

- Cornell Cooperative Extension (CCE) Albany
- CCE Dutchess
- CCE Rockland
- CCE Saratoga
- Rensselaer Land Trust
- Hudson Sloop Clearwater

Activities include:

- Tabling at events
- Presentations in community venues
- Classes at schools
- Informal surveys on Hudson River fish consumption
- Promoting advice via radio, newspapers, and social media
- 2020/21 - COVID adaptations



NYS DOH Hudson River Fish Advisory Outreach

# Hudson River Fish Consumption Advice



# What Is the Advice?

- Women under 50 (childbearing years) and children under 15 should not eat any Hudson River fish or crabs between Hudson Falls and the New York City Battery
  - Chemicals (PCBs) may have a greater effect on the development of young children or unborn babies. Also, some chemicals may be passed on in mother's milk.
- For men over 15 and women over 50 the advice depends upon
  - who you are
  - where you fish
  - what you catch
- In addition to anglers, a focus on reaching young women and families

## **WARNING!**

Fish and crabs from these waters contain chemicals and may be harmful to eat, especially for women and children.

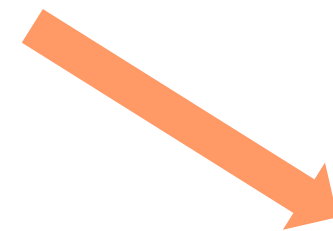
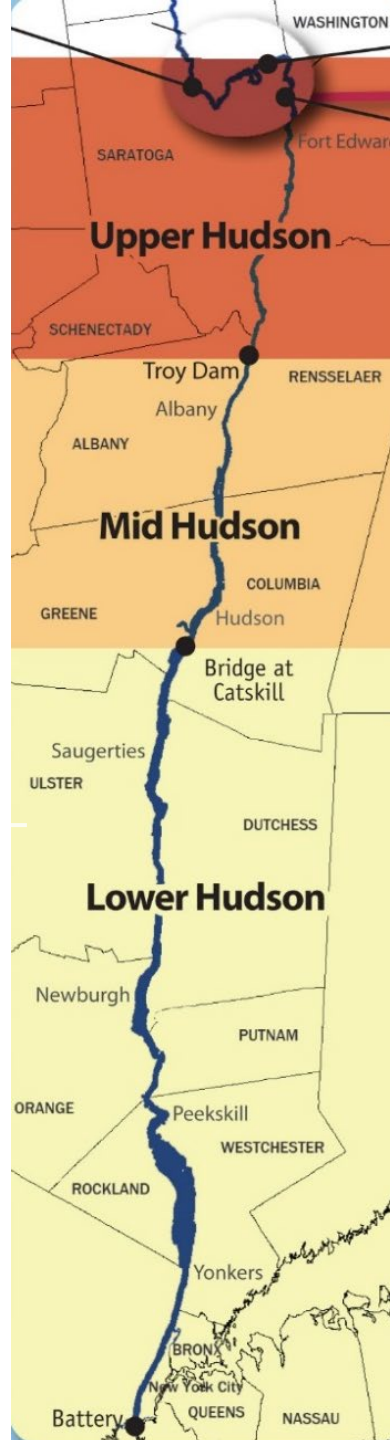


Learn more! Call NYS Department of Health  
518-402-7800  
800-458-1158

Hudson River  
Advice for Men  
over 15 and  
Women over 50:

Hudson Falls to  
Troy

Troy to Catskill



### Upper Hudson

From the Rt. 9 Bridge to Troy Dam

Do not eat fish from the Route 9 Bridge to the Troy Dam.

From Baker's Falls to the Troy Dam, New York's State Department of Environmental Conservation's "catch and release" regulations apply.

**Take No Fish. Eat No Fish.**

### Mid Hudson

From Troy Dam to Bridge at Catskill



















Eat up to one meal a month:

 Alewife	 Rock bass
 Blueback herring	 Yellow perch

**Do not eat other fish from the Mid Hudson including striped bass**

13

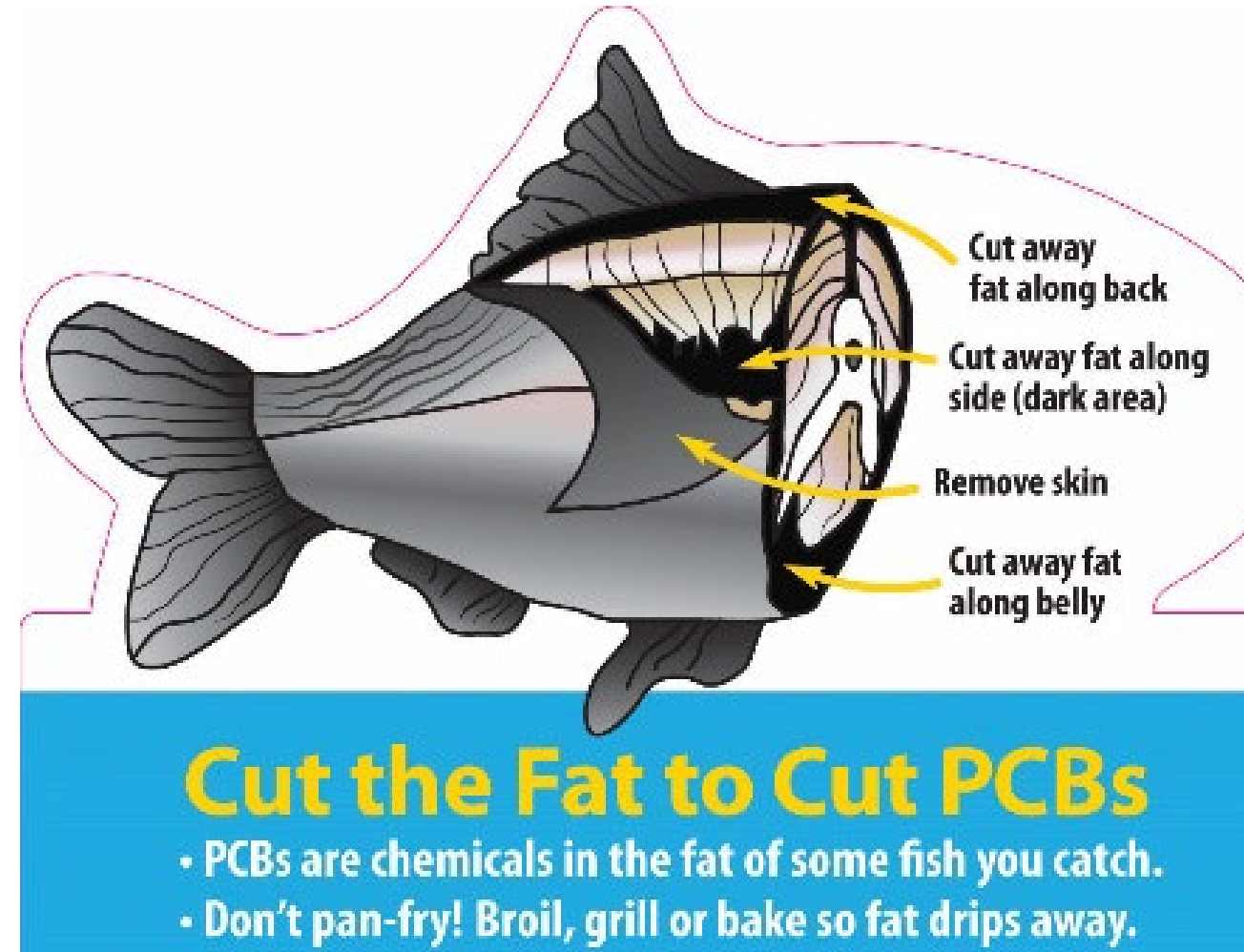
# Hudson River Advice for Men over 15 and Women over 50: Catskill to NYC

<p><b>Lower Hudson</b> From Rip Van Winkle Bridge at Catskill to the NYC Battery</p>	 Men over 15 and Women over 50	 Women under 50 and Children under 15
 <b>Walleye</b>  <b>White catfish</b>  <b>Channel catfish</b>  <b>American eel*</b>  <b>Gizzard shad</b> <i>*DEC regulations prohibit taking American eel for food from the Hudson River</i>	DON'T EAT	DON'T EAT
 <b>Striped bass</b>  <b>Smallmouth bass</b>  <b>Largemouth bass</b>  <b>Bluefish</b>  <b>Brown bullhead</b>  <b>White perch</b>  <b>Carp</b>  <b>Rainbow smelt</b>  <b>Goldfish</b>  <b>Atlantic needlefish</b>	Up to 1 meal/month	DON'T EAT
 <b>Blue crab</b> Do not eat the tomalley (green stuff, mustard) or reuse cooking water	Up to 6 crabs/week	DON'T EAT
All other species	Up to 4 meals/month	DON'T EAT

# PCBs and Dioxin Build Up in the Skin and Fat of Fish

People who eat Hudson River fish can reduce chemicals in a fish meal by:

- Removing the skin and fat and cooking so fat drips off
  - can remove about half of the PCBs in a fish meal
- This advice is problematic for many ethnic groups as they prefer to use the whole fish
- Avoiding eating fish with high levels of PCBs like catfish and walleye



# Reducing Chemicals in a Crab Meal

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- PCBs, dioxin and cadmium build up in the crab mustard/tomalley (don't eat)
- 80% of the PCBs move into the cooking water - discard cooking juices and don't use to make sauces or soups
- Very popular – people who catch them, eat them
- Women under 50 and children under 15 shouldn't eat any crabs from the Hudson River
- Crab mustard/tomalley consumption is common for a number of ethnic groups

## New York State Blue Crab Cooking & Eating Guide



# Signs, Free Materials, and Key Outreach Tools

## WARNING!

Fish and crabs from these waters contain chemicals and may be harmful to eat, especially for women and children.



### Learn more!

Call NYS Department of Health  
518-402-7800  
800-458-1158

## NOTICE!

Some fish and crabs from these waters may be harmful to eat.



### Learn more!

Call NYS Department of Health  
518-402-7800  
800-458-1158

# Hudson River Fish Advisory Signs

- NYS DOH developed signs with input from local focus groups
- Signs are free to property owners and are available in English, Spanish, and Chinese
- Posting signs is voluntary on the part of property owners

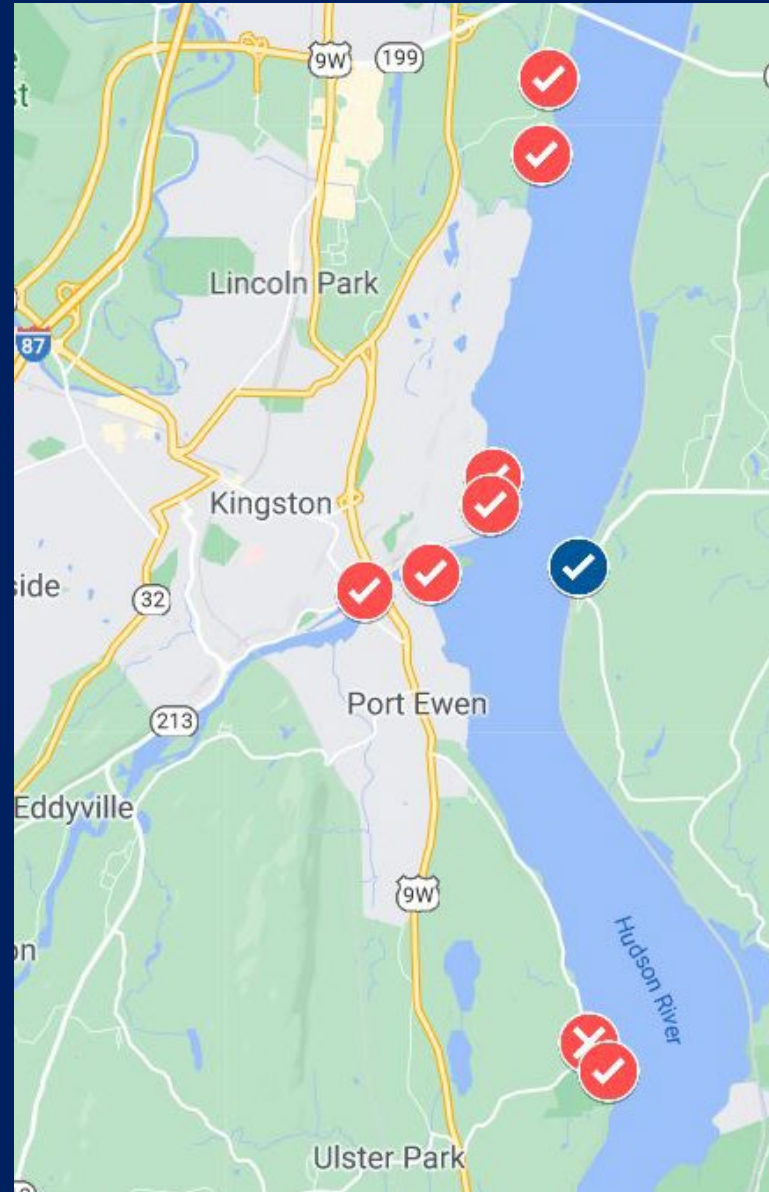
# Maintaining a Sign Program

- Signs require maintenance – are frequently damaged or removed
- Staff do annual/semi-annual inspections of signage at fishing access sites south of the Federal Dam in Troy
- Over 500 signs have been mailed
- Actively manage about 120 sites between the Federal Dam and NYC
- Sites primarily include state and municipal public access points (parks, boat launches)
- If signs needed, find property owners and follow up by letter and phone calls



# Future Addition: Google Map of Sign Locations

- Making a public interface to our database
- Check mark means signs are posted
- “X” means no signs
- Clickable and shows some details about correspondence



← Hudson River Fish Advisory ... ✕

TR GALLO WATERFRONT PARK - KINGSTON

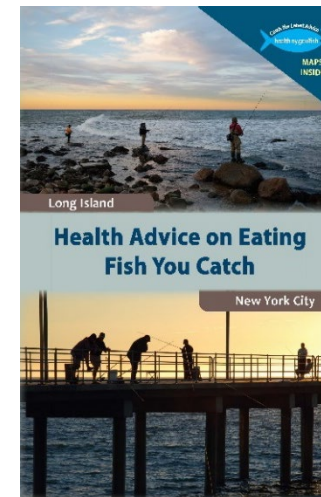
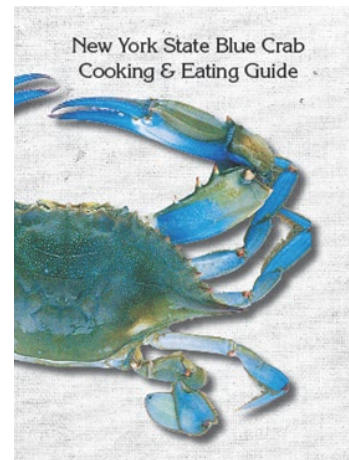
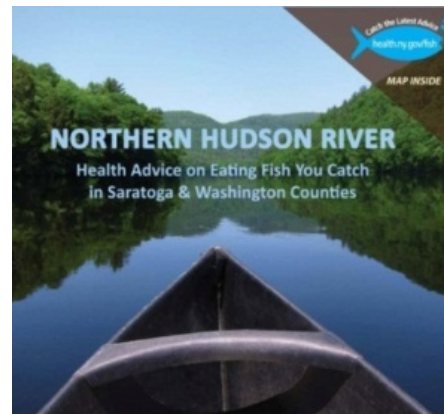
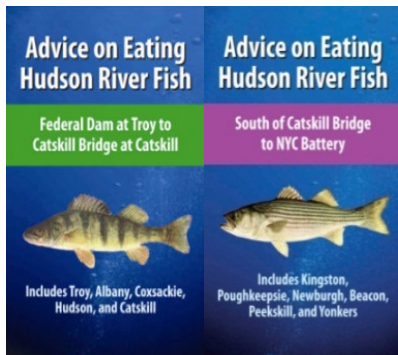
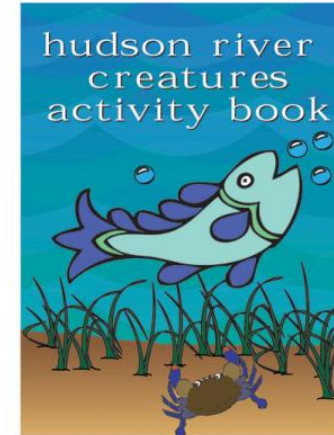
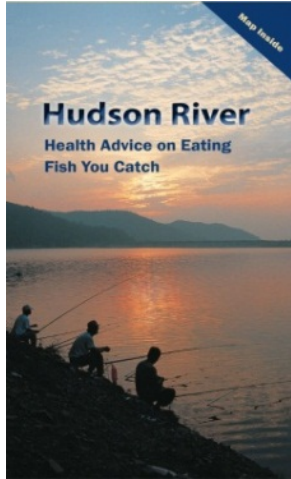
2019 - 1 Spanish warning, 1 English warning, 1 Spanish notice.  
Missing 1 English notice

2017- 1 English, 1 Spanish warning posted on pier, mailed 2 more signs

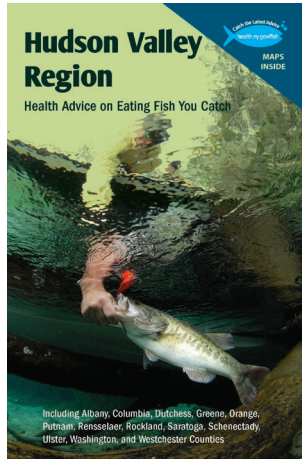
2014- mailed 3 English 3 Spanish

2013- no signs

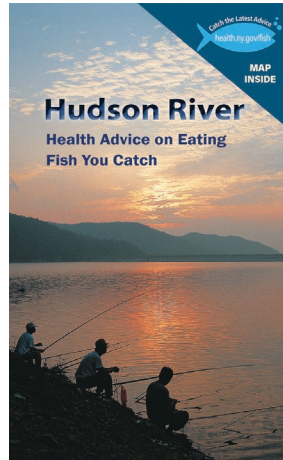
# Free Hudson River Fish Advisory Materials



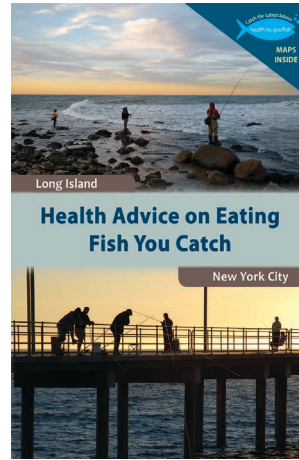
# Expanded Languages Available



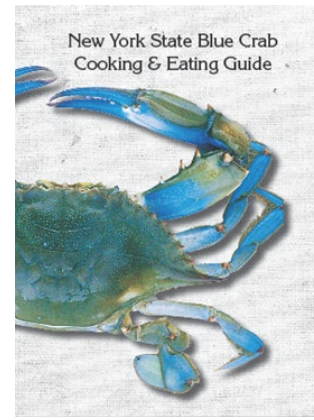
- English
- Spanish
- Simplified Chinese
- Haitian Creole
- Russian
- Polish



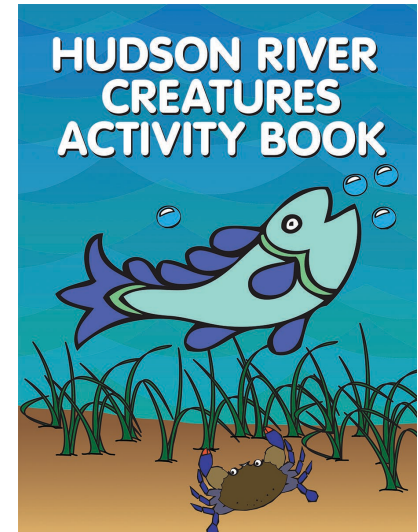
- English
- Spanish
- Simplified Chinese
- Haitian Creole
- French



- English
- Spanish
- Simplified Chinese
- Traditional Chinese
- Haitian Creole
- Russian
- Polish
- Korean



- English
- Spanish
- Simplified Chinese
- Traditional Chinese



- English
- Spanish
- Simplified Chinese

# Hudson Valley Region

Health Advice on Eating Fish You Catch



MAPS  
INSIDE

## Answering “Where Can I Eat the Fish?”

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- Positive messaging to encourage following the advice
  - suggest where a family can eat fish as healthier alternatives
- 2015 - Hudson Valley Region published
- Has advice for all waters in 13 Hudson River counties
- Also includes a list of waters with public access where the family can eat fish
- In English, Spanish, Chinese, Haitian Creole, Russian, and Polish
- ~ 4,000 distributed each year

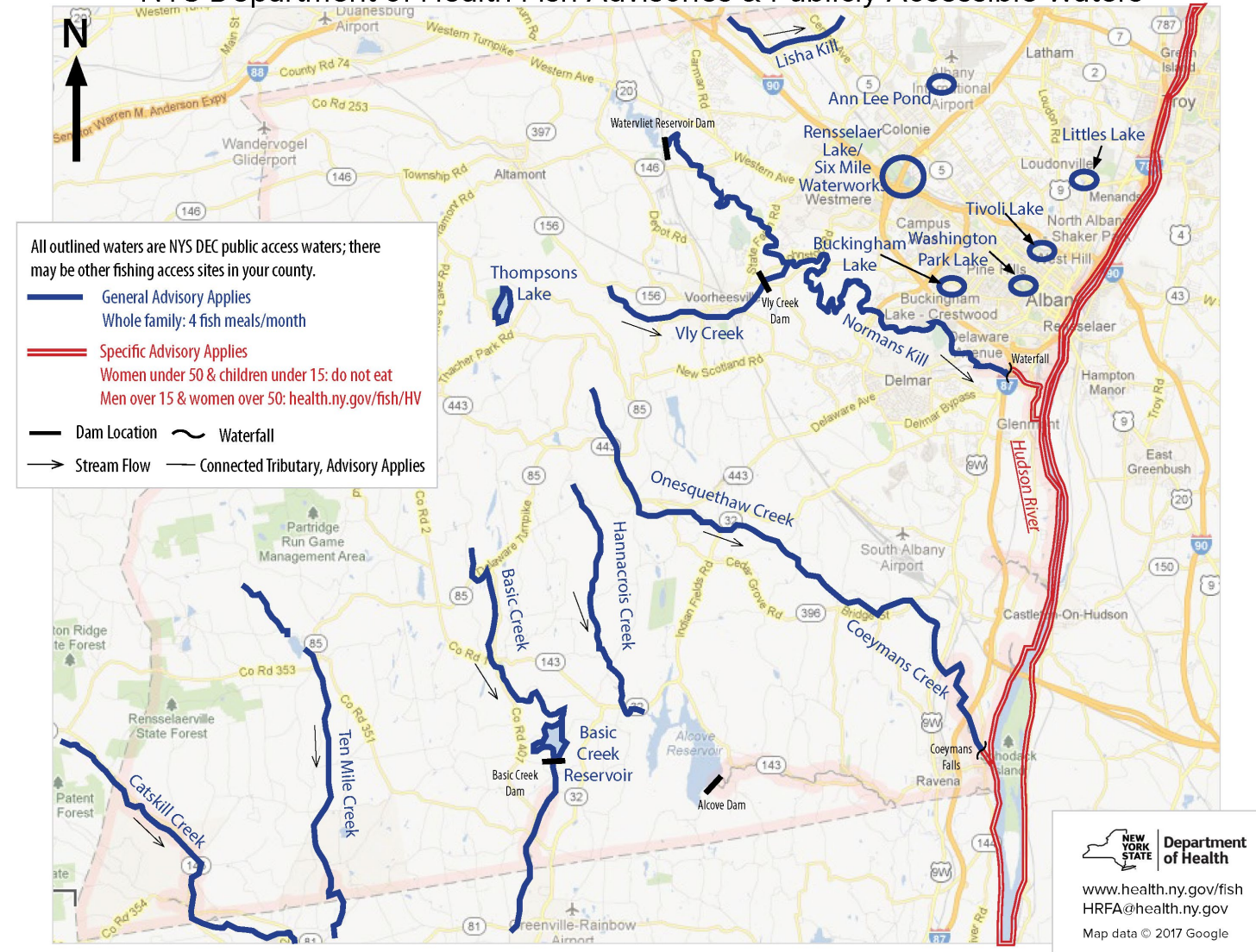
Including Albany, Columbia, Dutchess, Greene, Orange, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Ulster, Washington and Westchester Counties

# Maps Help People Make Better Choices

- Color coded public access fishing waters maps now available for the entire Hudson Valley
- **Blue waters** = waters where the whole family can eat fish from
- **Red waters** = waters that have specific advice (women and kids should not eat fish from these waters)

## Albany County Fishing Waters

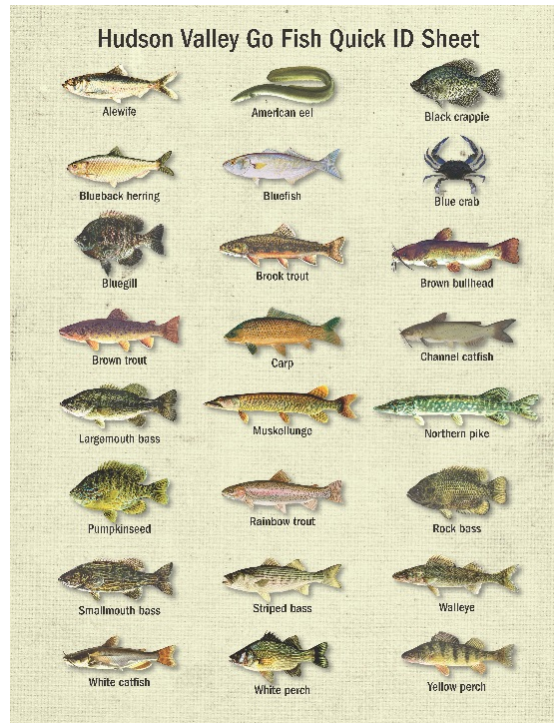
NYS Department of Health Fish Advisories & Publicly Accessible Waters



[www.health.ny.gov/fish/maps.htm](http://www.health.ny.gov/fish/maps.htm)

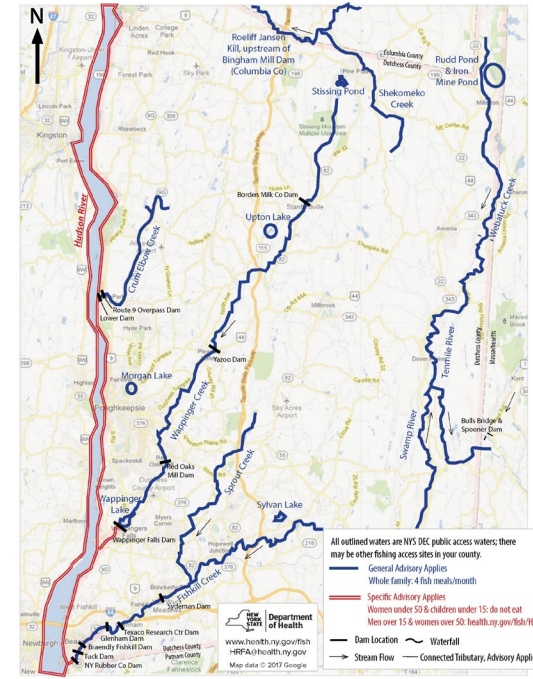


**Pick a fish**



**ID the fish**

Dutchess County Fishing Waters  
NYS Department of Health Fish Advisories & Publicly Accessible Waters



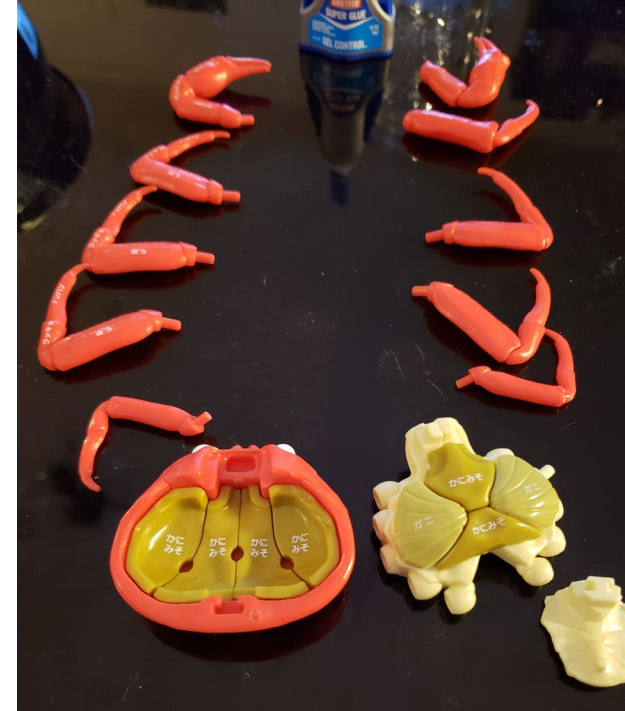
**Can you keep your fish or should you throw it back?**

**Red Waters**  
Families should avoid eating fish from waters in red.  
Throw it back!

**Blue Waters**  
Fish from blue waters are a good choice for the whole family. You can keep your fish!

**Keep it or throw it back**

# Interactive "Go Fish" Game



# Hands On Learning!

## PCBs in Hudson River Fish

The Hudson River has one of the highest levels of PCB pollution of any river on the East Coast. In this module, students will learn about the history of PCB's in the Hudson, how PCB's get into the fish we eat, and what has been done to remove PCB's from the Hudson River. Students will also gain experience analyzing data by exploring how levels of PCB's vary over time, location, and between different species of fish. There are separate versions of the lessons that are appropriate for middle school and high school students.

### Lesson 1: Exploring Hudson River PCB data

Students will know how to answer the question, "How likely is it that a striped bass caught near where the students live on the Hudson River will be above the FDA supermarket standard of 2 ppm?" and be able to provide evidence to support their answer.

### Lesson 2: Do Hudson River striped bass PCB levels vary by location?

Students will know how to answer the question, "Are fish more contaminated from different locations in the River?" and be able to provide evidence to support their answer.

### Lesson 3: Which fish should I eat?

Students will know how to answer the question, "Are some fish less harmful to eat from the Hudson River than others?" and be able to provide evidence to support their answer.

- [caryinstitute.org/educators/teaching-materials/hudson-river-ecology/pCBS-hudson-river-fish](http://caryinstitute.org/educators/teaching-materials/hudson-river-ecology/pCBS-hudson-river-fish)
- [health.ny.gov/hudsonriverfish](http://health.ny.gov/hudsonriverfish)



Questions? Contact Rhea Esposito: [espositor@caryinstitute.org](mailto:espositor@caryinstitute.org)

# 2018 Cary Institute Hudson River Fish PCB Lesson Plans

- Free lesson plans available for high school and middle school aged children
- Created through a grant from the NYS DOH Hudson River Fish Advisory Program to the Cary Institute for Ecosystem Studies in collaboration with DEC
- Students learn about the history of PCBs in the Hudson, how PCBs get into the fish we eat, and gain experience analyzing fish data
- Available here:  
[caryinstitute.org/educators/teaching-materials/hudsonriverecology/pCBS-hudsonriver-fish](http://caryinstitute.org/educators/teaching-materials/hudsonriverecology/pCBS-hudsonriver-fish)

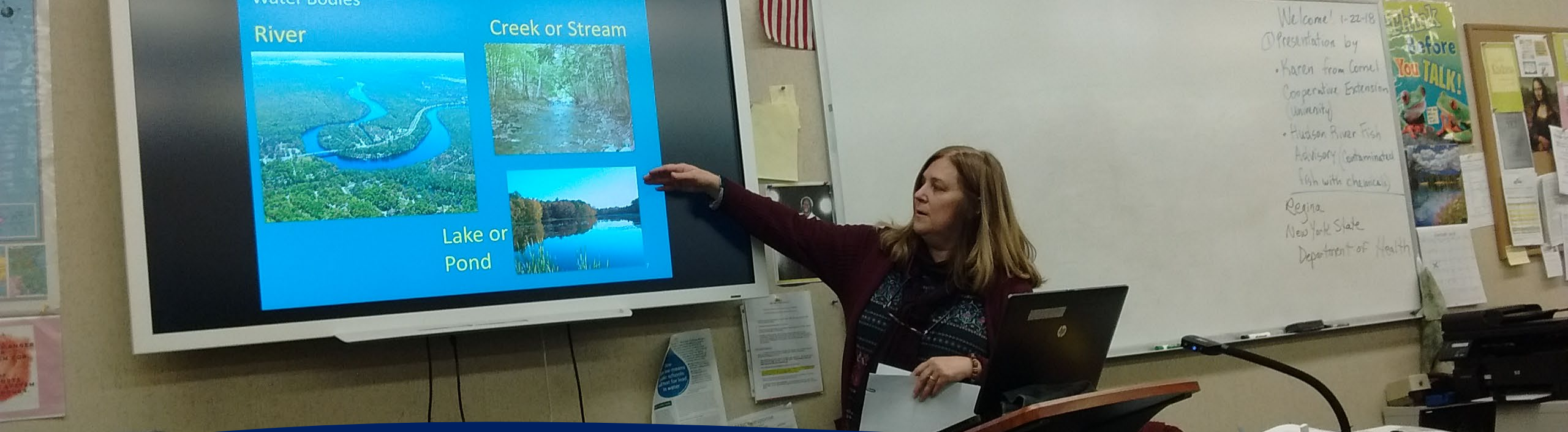


# Outreach to Newcomers



# Outreach to Newcomers

- Often are less aware of contamination
- Need to rely on community partners to identify and connect
- Cultural practices – may eat whole fish, like fatty species like catfish, make fish paste, eat crab tomalley (mustard)
- Language and literacy barriers - develop and use different strategies
- Some newcomers eat substantially more local fish than average licensed angler
  - In a NYS DOH study in Buffalo, people from Burma ate five times more fish than licensed anglers (average of 102 locally-caught fish meals per year)



## Reaching the Hard to Reach

- NYS DOH and partners work with many immigration and newcomer coalitions
- In a collaboration with Albany BOCES, NYS DOH and Albany CCE staff presented to 60+ English language learner and GED classes since 2018
- Presentation teaches vocab, about the fish advisory, and highlights healthy places to eat fish locally
- Yearly activities are detailed in our Hudson River Project Updates (on NYS DOH website)

# Consumption Surveys



## HRFA Fish Consumption Surveys – Tools to Foster Understanding

NYS DOH and partner surveys meet two important outreach goals:

- Targeting program resources over a large geographic area
  - Where are anglers fishing most frequently?
  - What are anglers eating and how do they cook fish?
  - Are they sharing fish?
- Education – anglers receive customized fish advisory information after the survey
  - The surveys help initiate conversation
  - Provides an opportunity for staff to tailor advice given to the angler based on survey responses

Caveat: the surveys are not statistically representative, not a Creel survey

# Survey Considerations

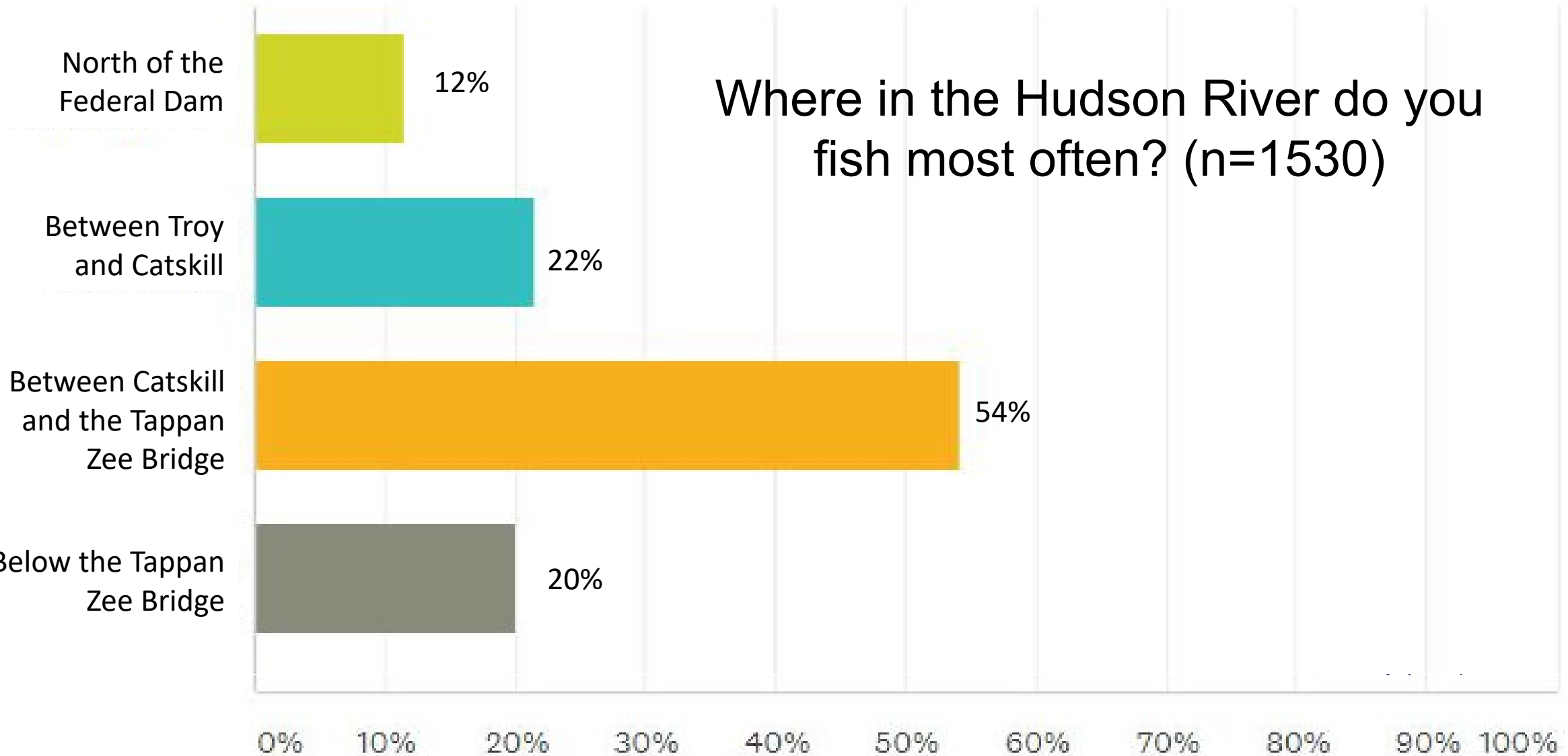
- Are self-report, reflect bias of who chooses to participate
- Convenience sample- collected at a variety of community locations
- NYS DOH & Saratoga CCE surveys - must be a Hudson River angler
- Dutchess CCE survey - anyone can take



## Survey Considerations Continued:

- Surveys are very short
- People can skip questions, and some questions allow multiple responses (% totals may not always = 100%)
- Survey collection has been ongoing since 2013
- NYS DOH has collected 1,667 surveys at outreach events attended between Saratoga/Washington Co and NYC
- Link to survey results available in project reports

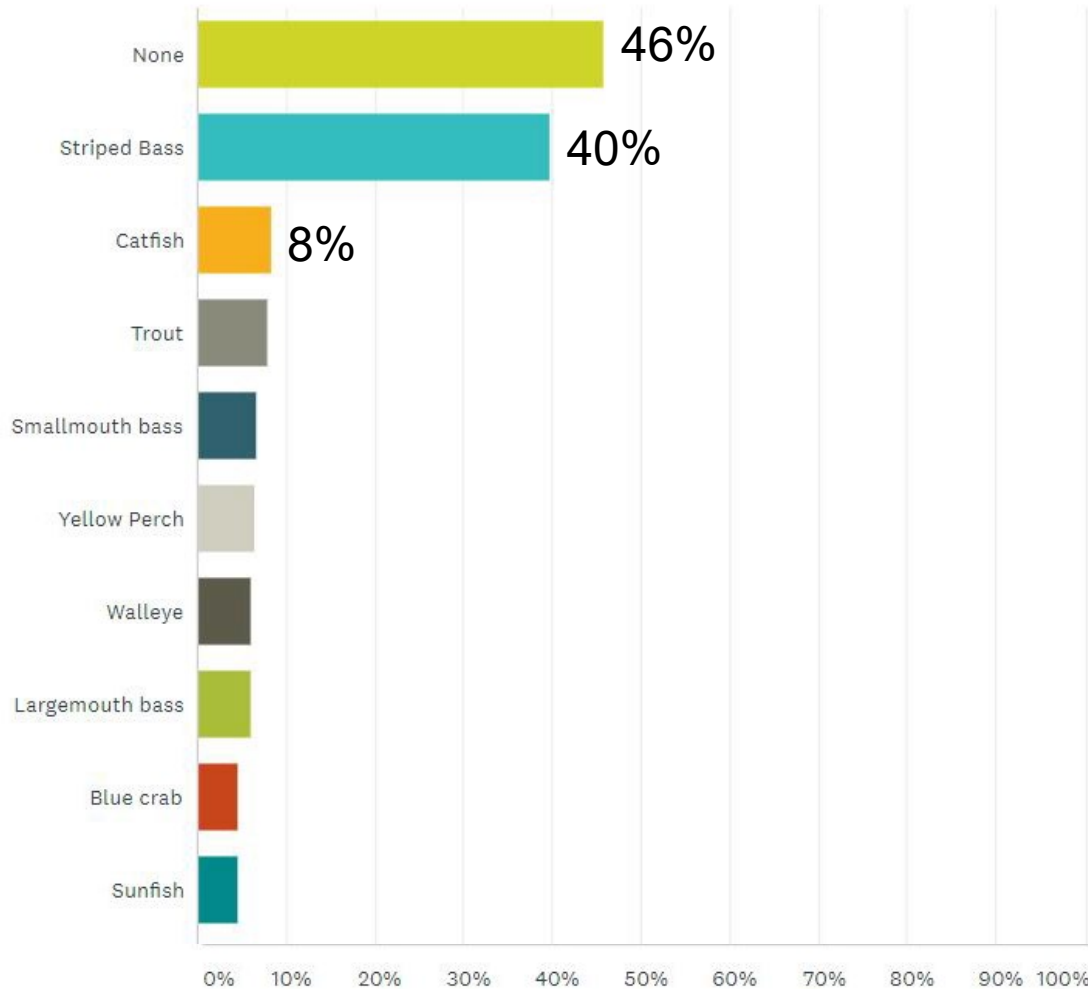
# Where in the Hudson River do you fish most often? (n=1530)



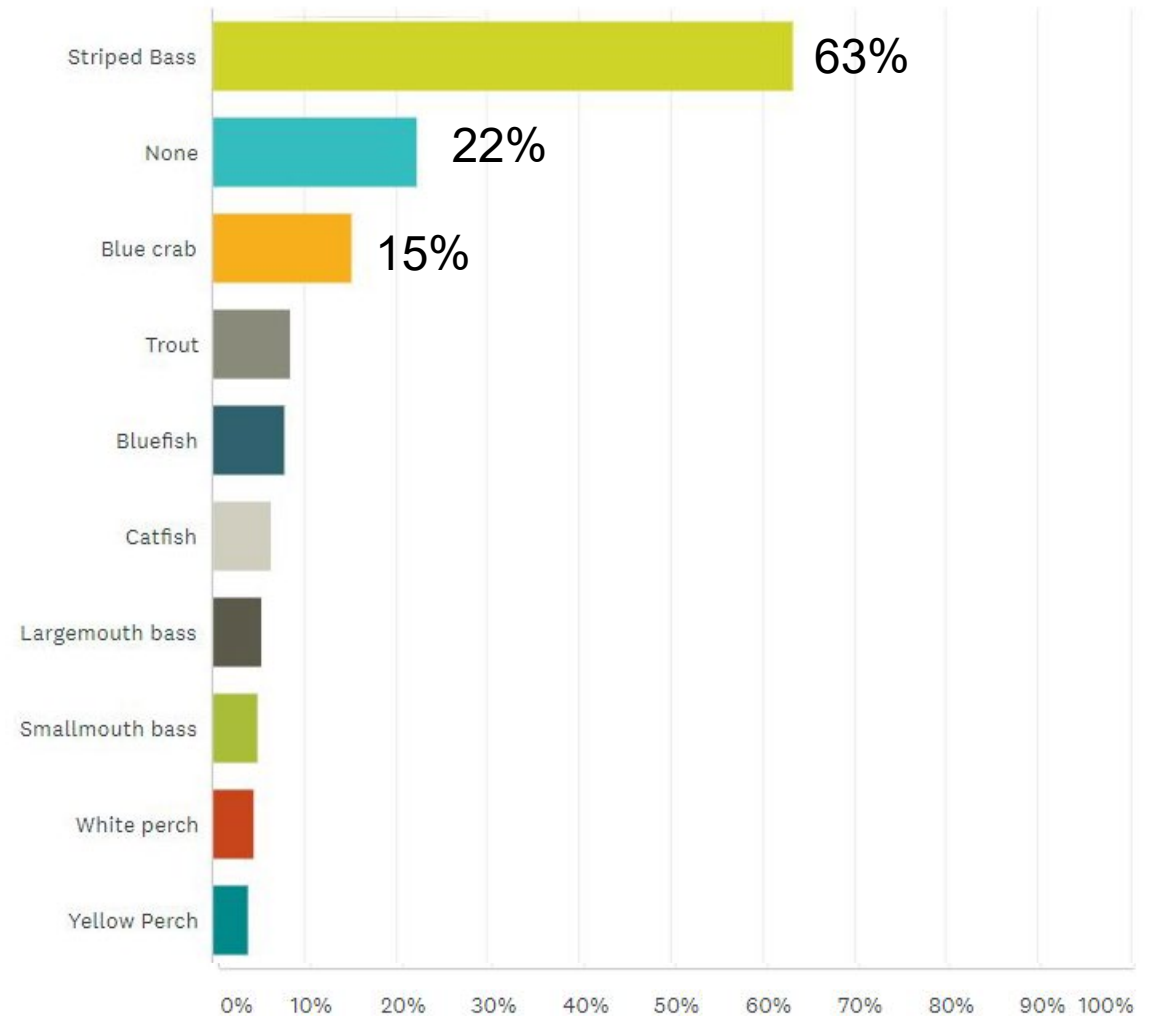


# What fish do you most frequently eat from the Hudson River?

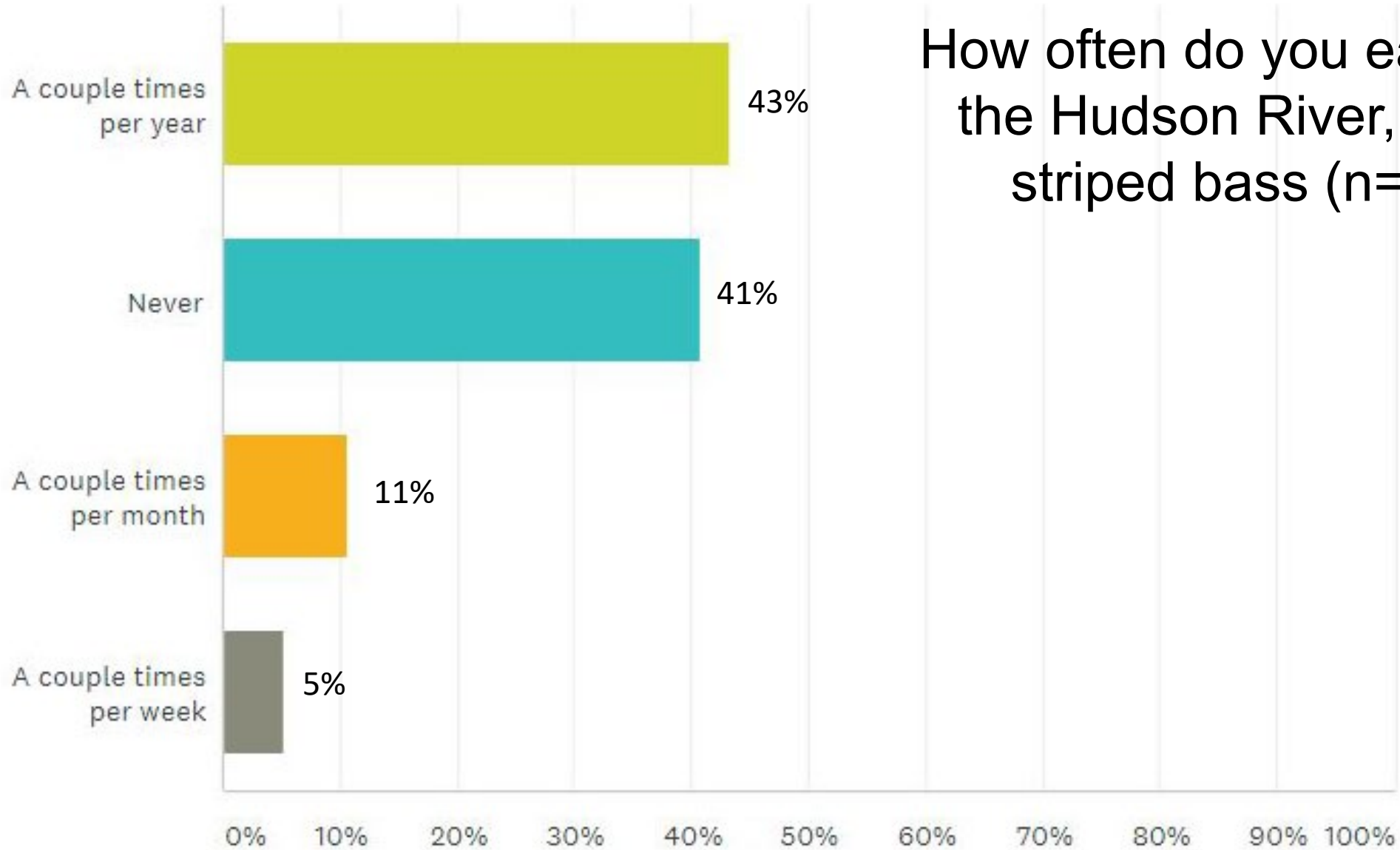
Usually fish between Troy and Catskill (n=266)



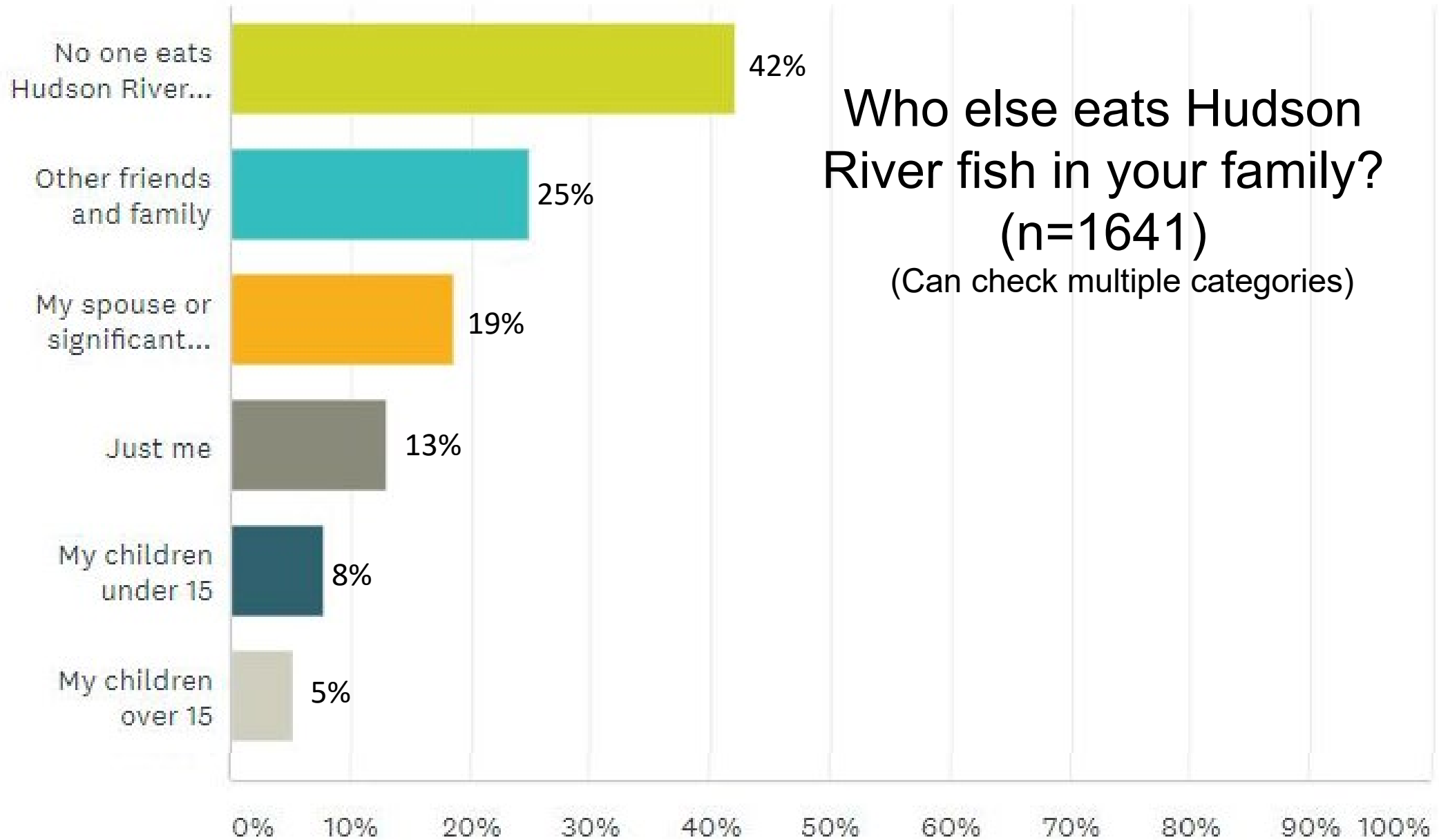
Usually fish between Catskill and the Battery (n= 810)



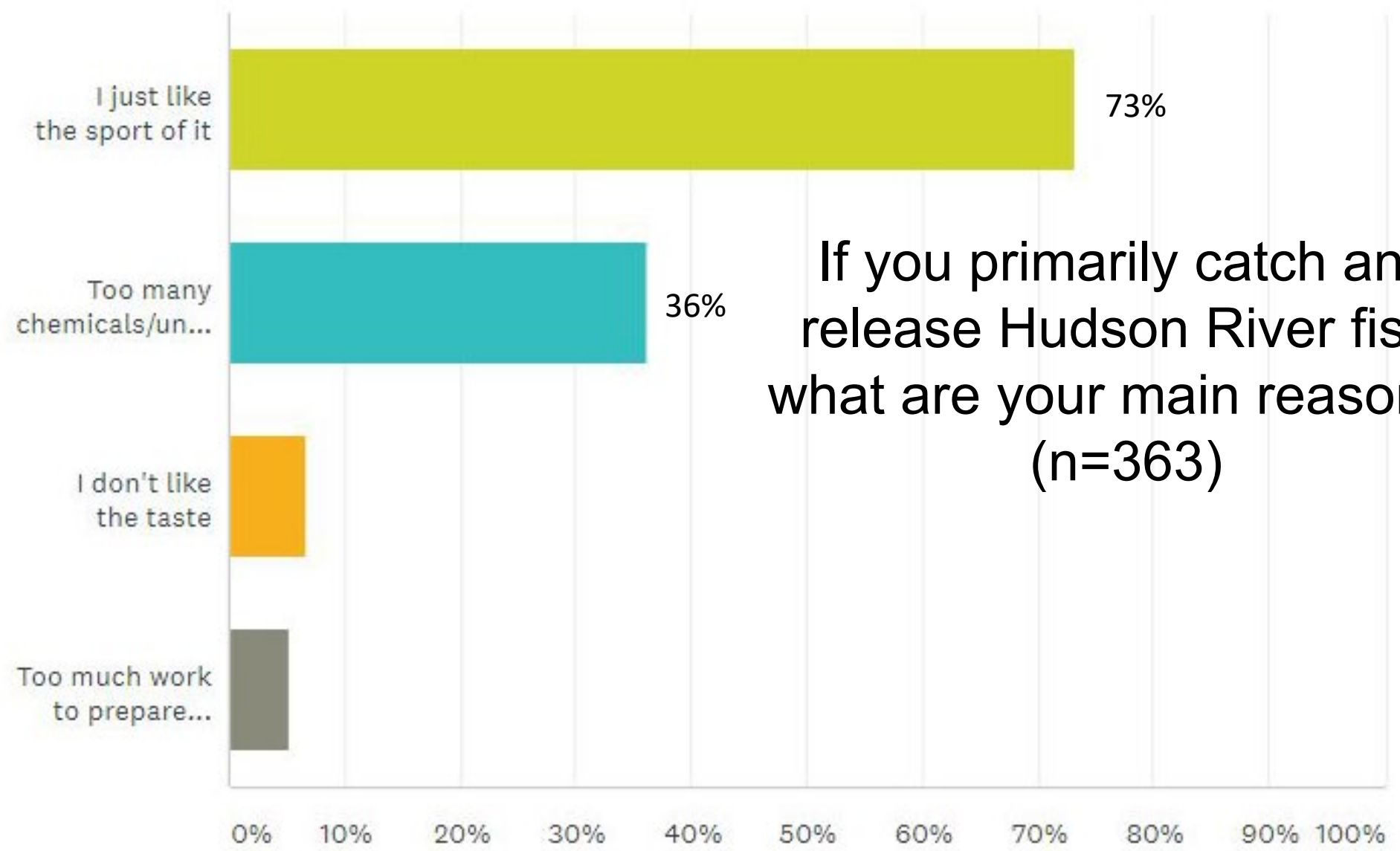
How often do you eat fish from the Hudson River, including striped bass (n=1634)?



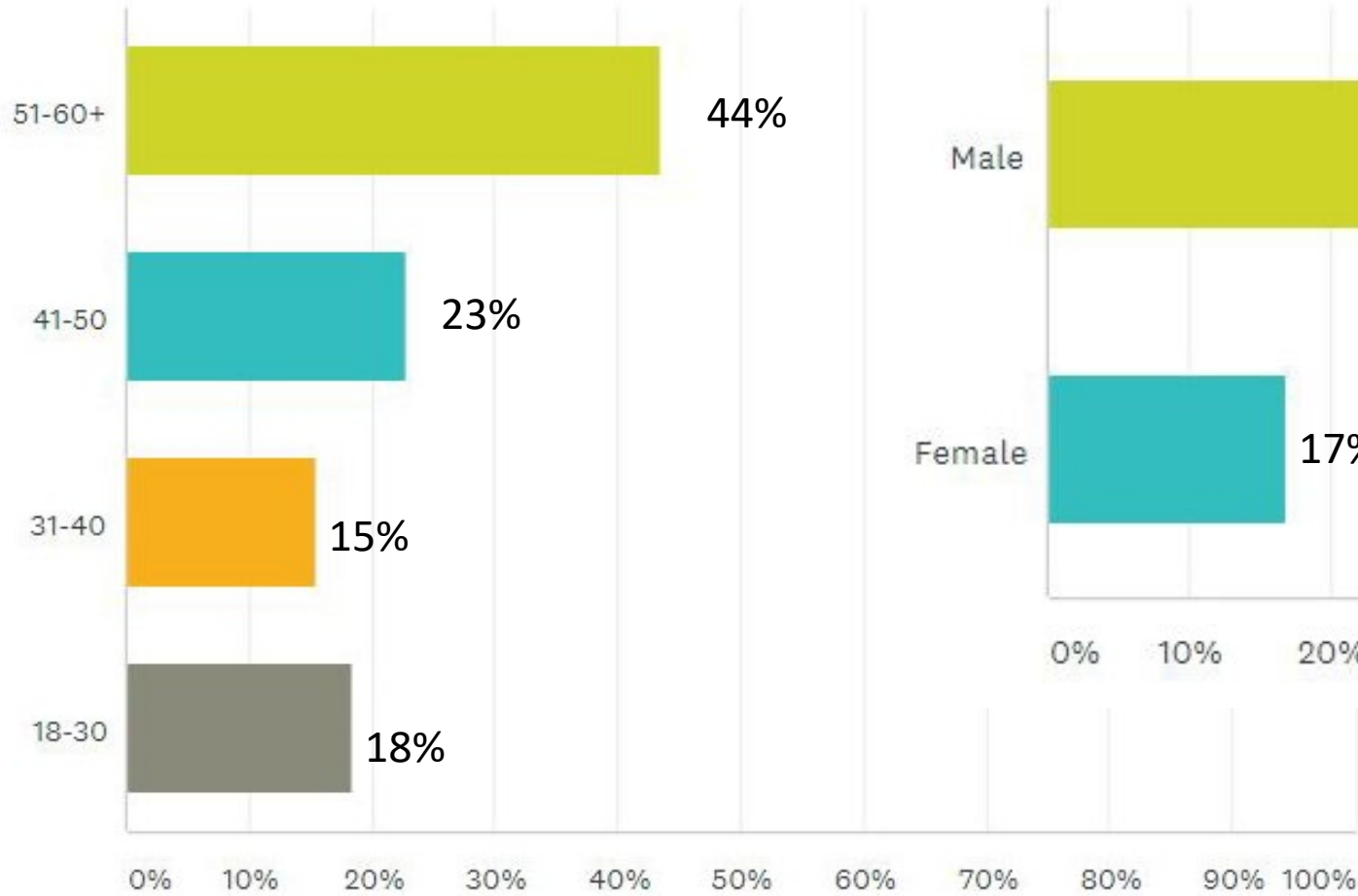
### Who else eats Hudson River fish in your family? (n=1641) (Can check multiple categories)



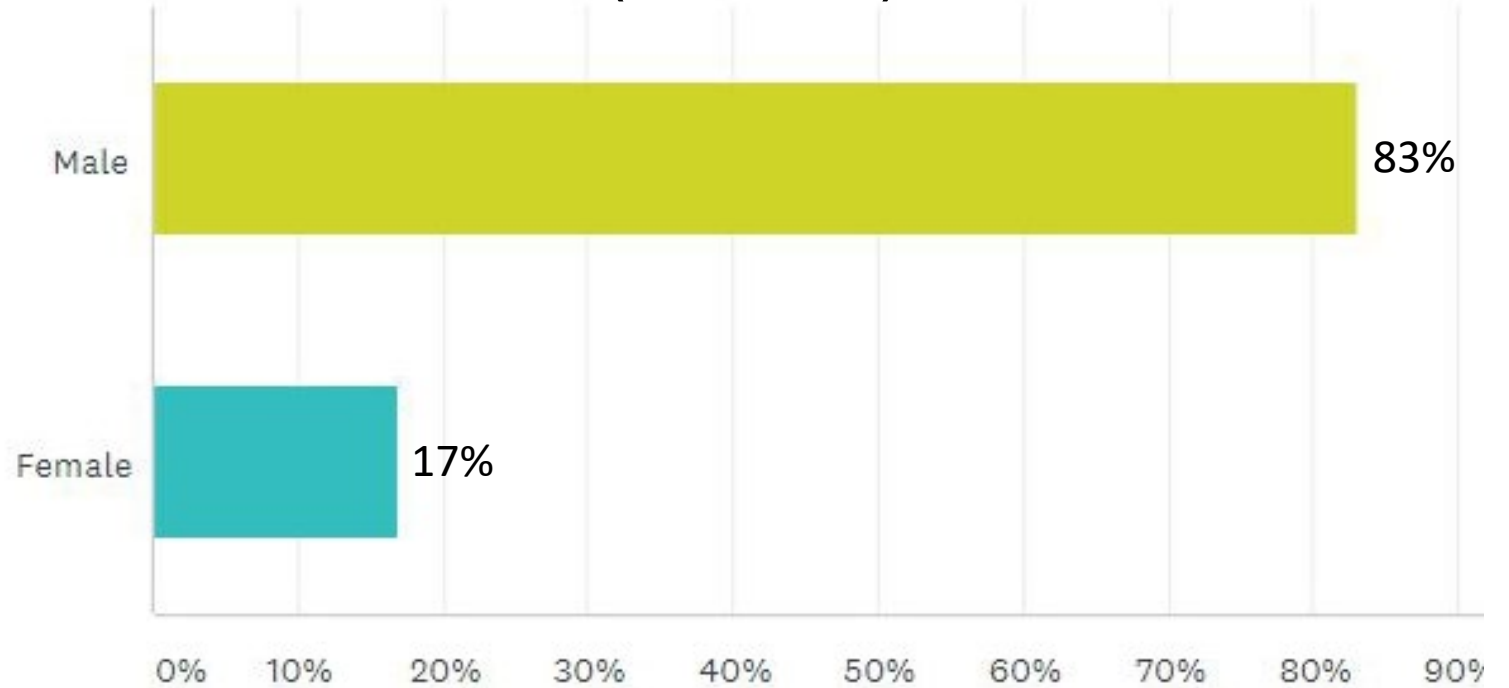
If you primarily catch and release Hudson River fish, what are your main reasons?  
(n=363)

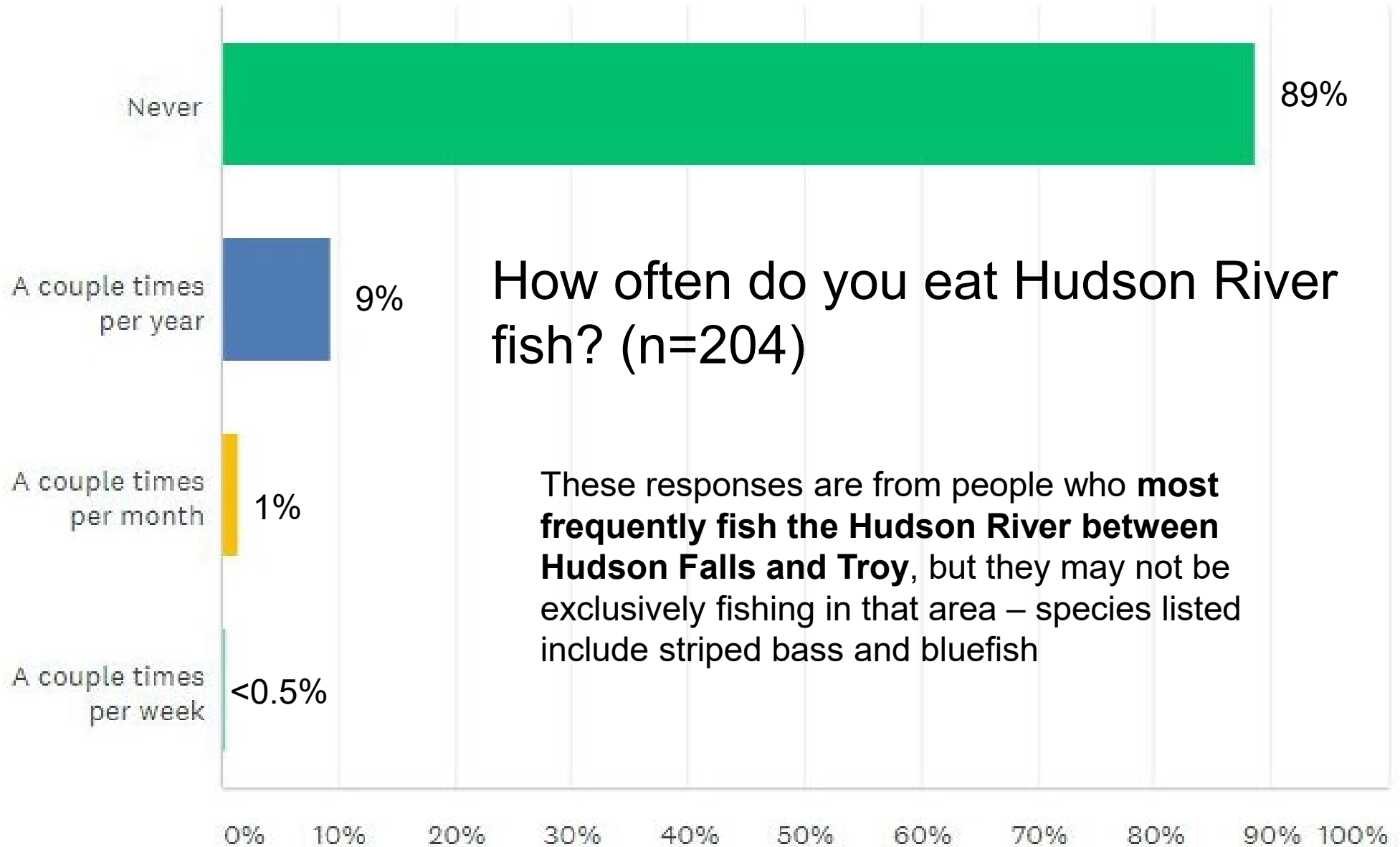


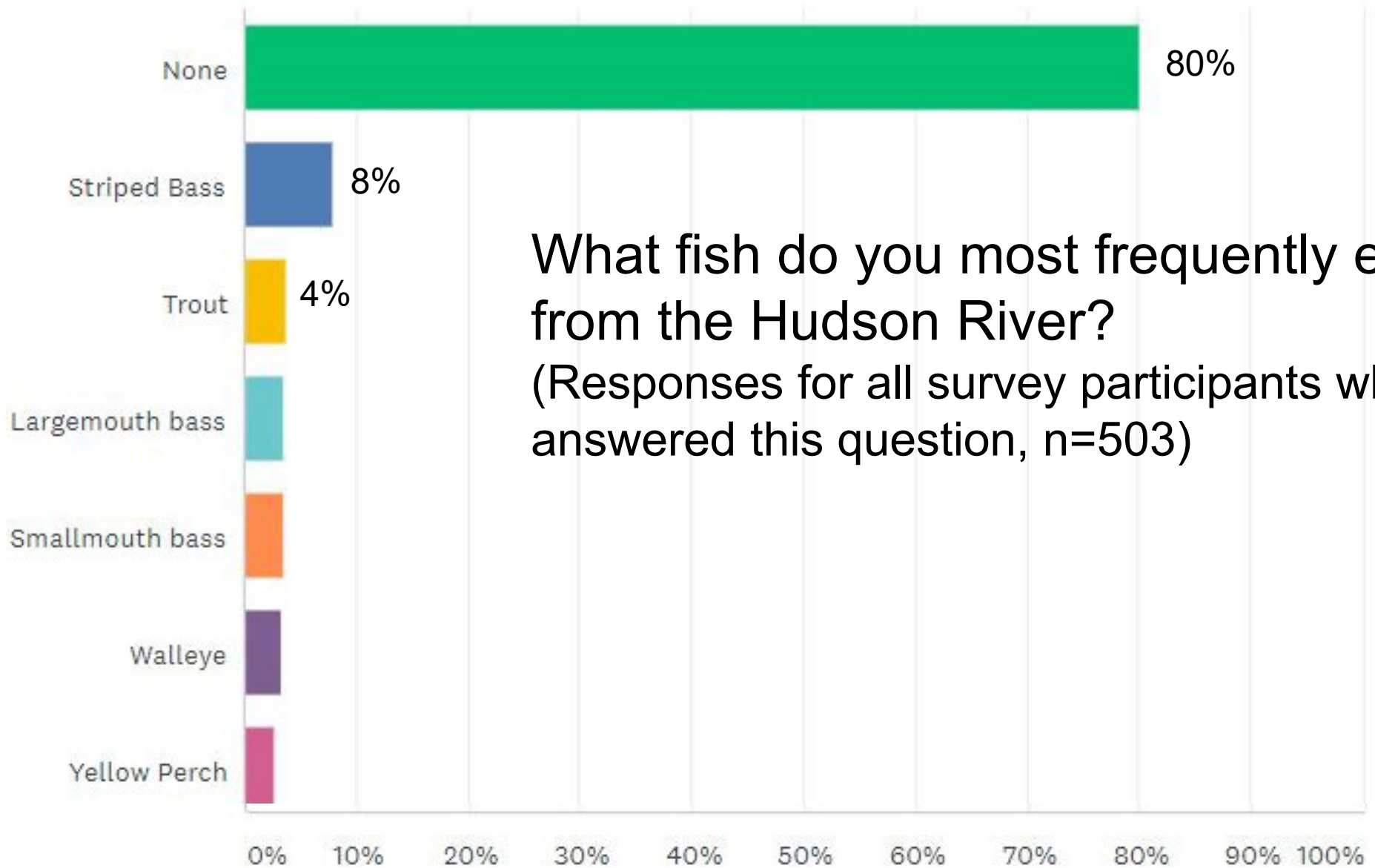
### What is your age? (n=1618)



### What is your gender? (n=1598)

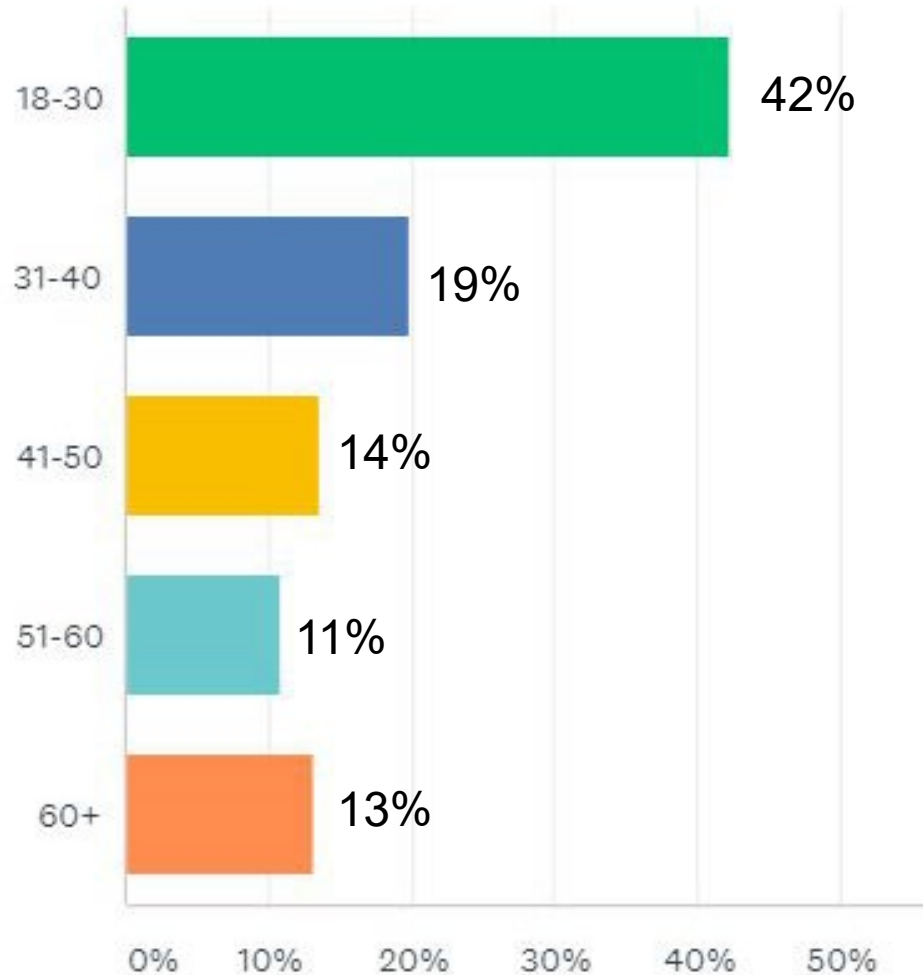




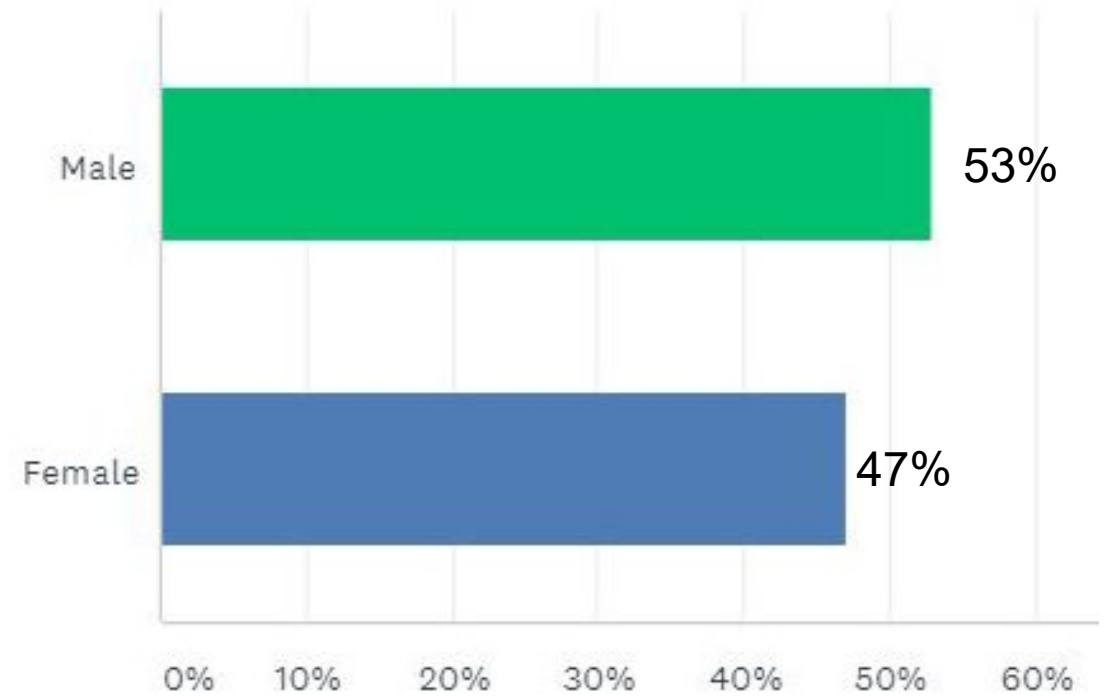


What fish do you most frequently eat from the Hudson River?  
(Responses for all survey participants who answered this question, n=503)

What is your age? (n=823)

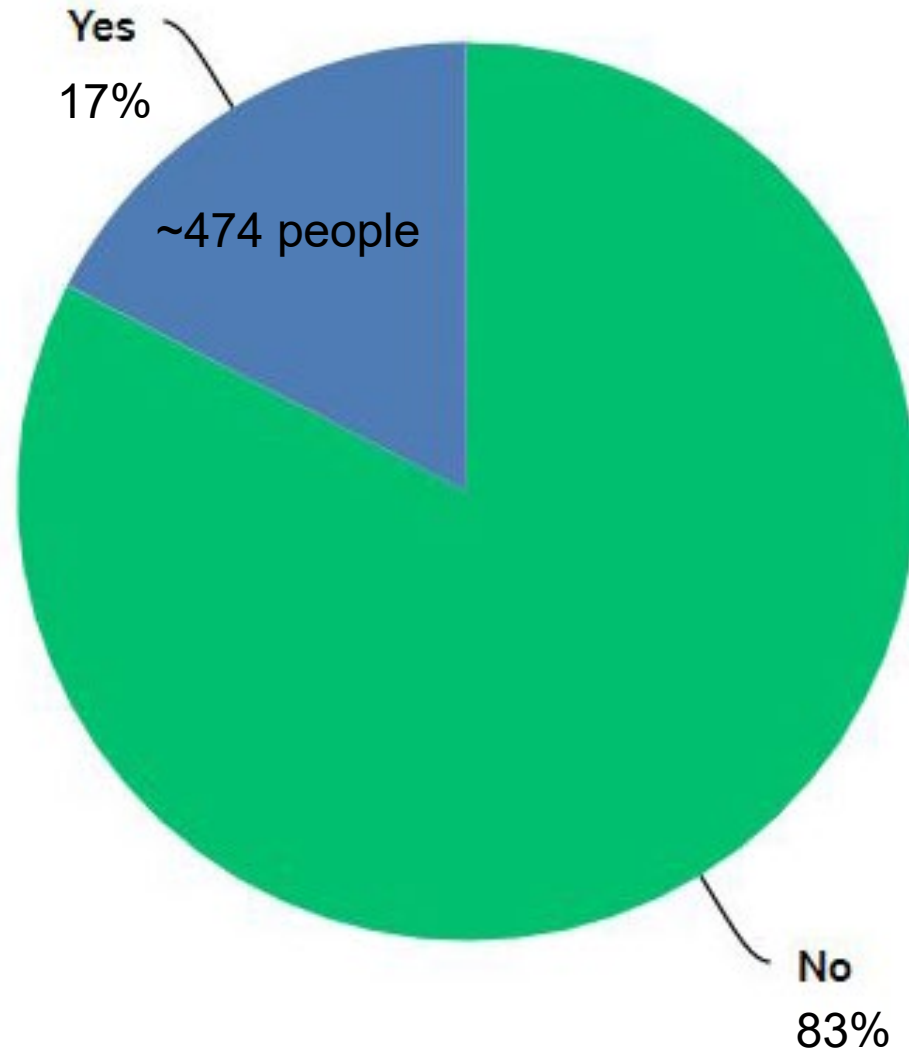


What is your gender? (n=826)

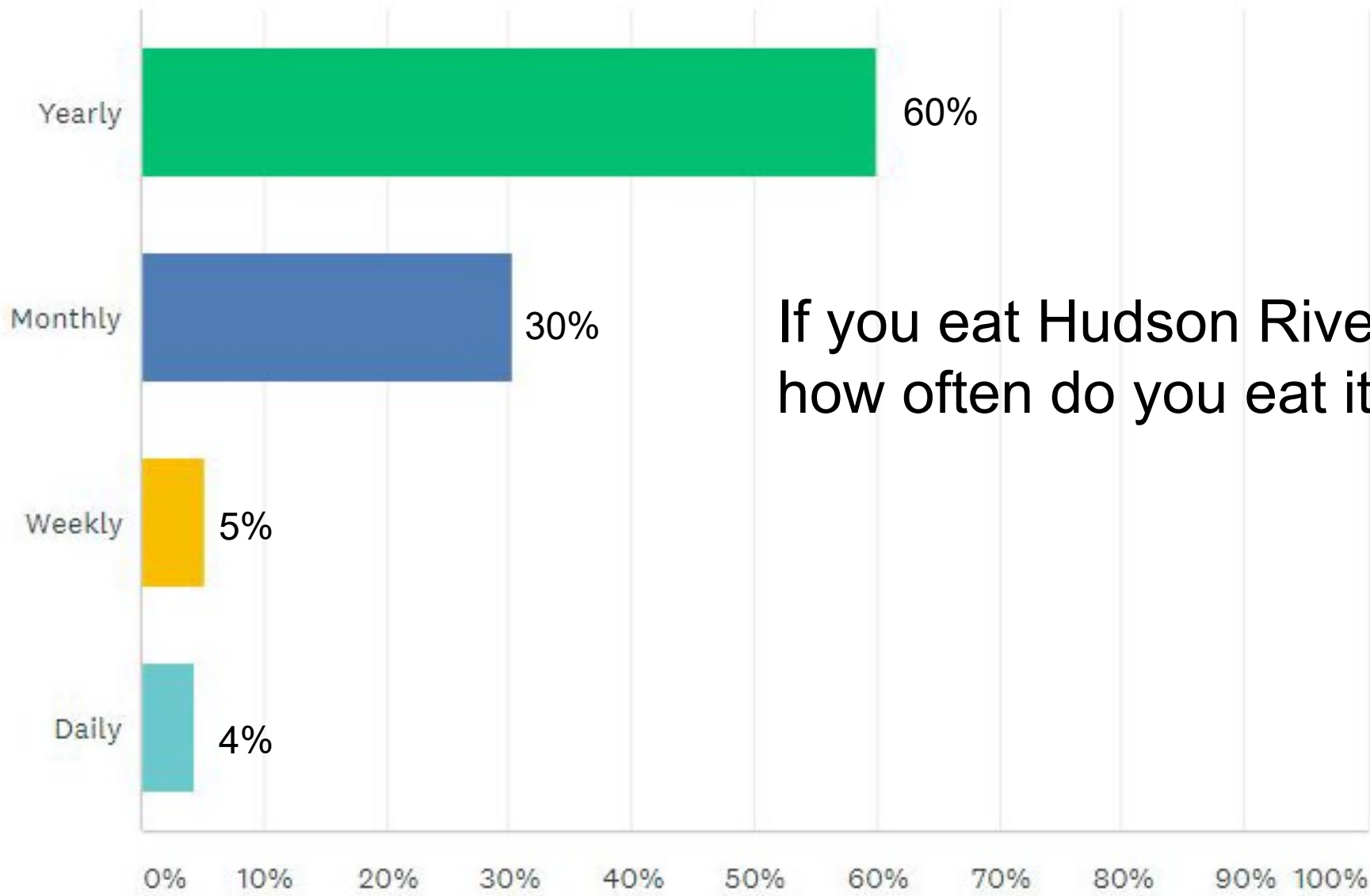




# Do you eat fish that you or someone you know caught LOCALLY? (n=2786)

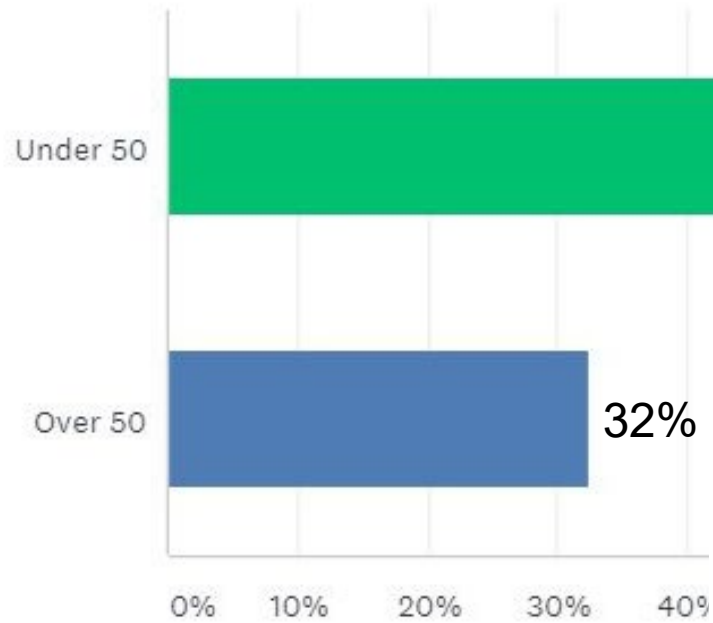


- CCE Dutchess results include responses from Dutchess, Ulster, Greene, Columbia, and Orange Counties
- Surveys are collected at food banks, low-income daycare centers, clinics, and other sites used to recruit nutrition program clients
- Anyone can take survey, not just Hudson River anglers

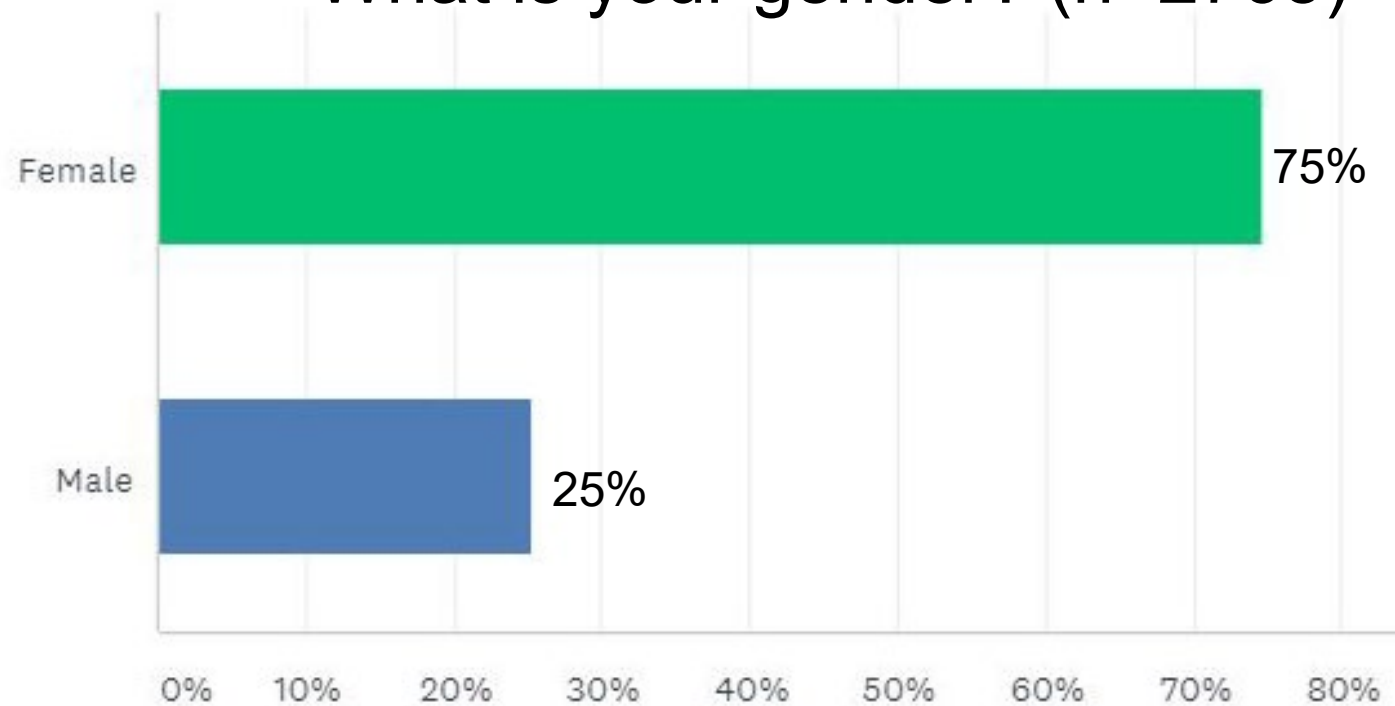


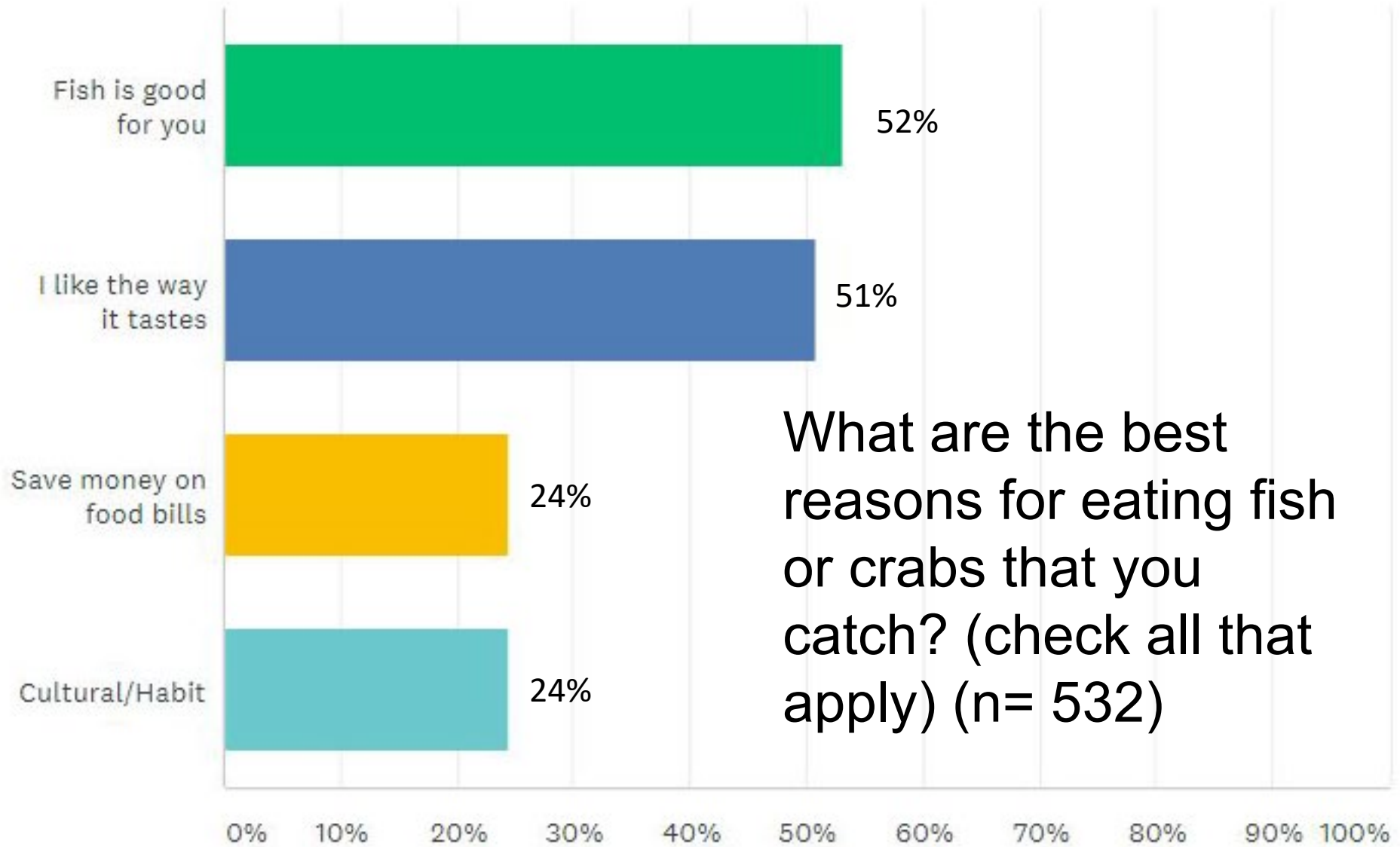
If you eat Hudson River fish, how often do you eat it? (n=115)

### What is your age? (n=2514)



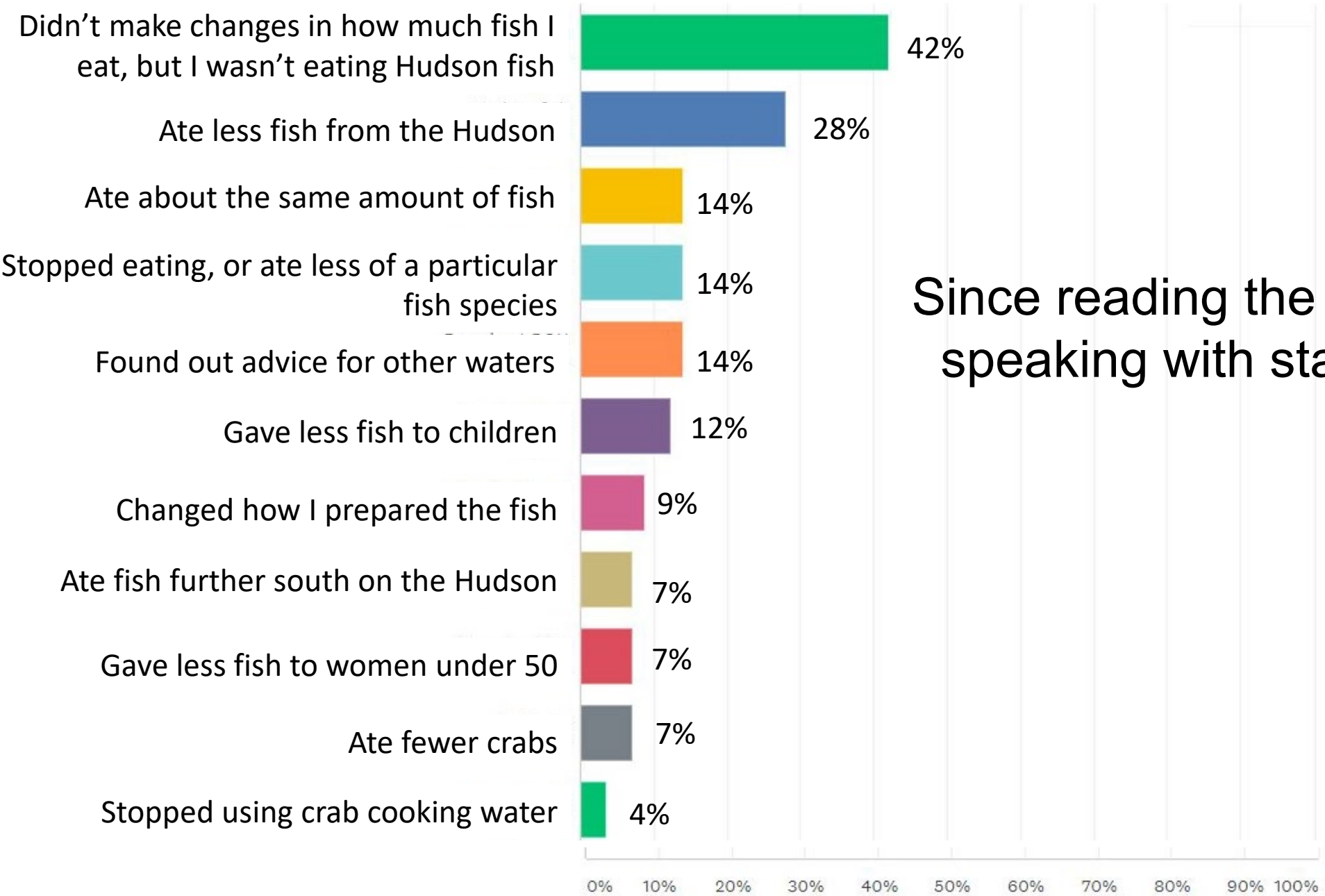
### What is your gender? (n=2765)





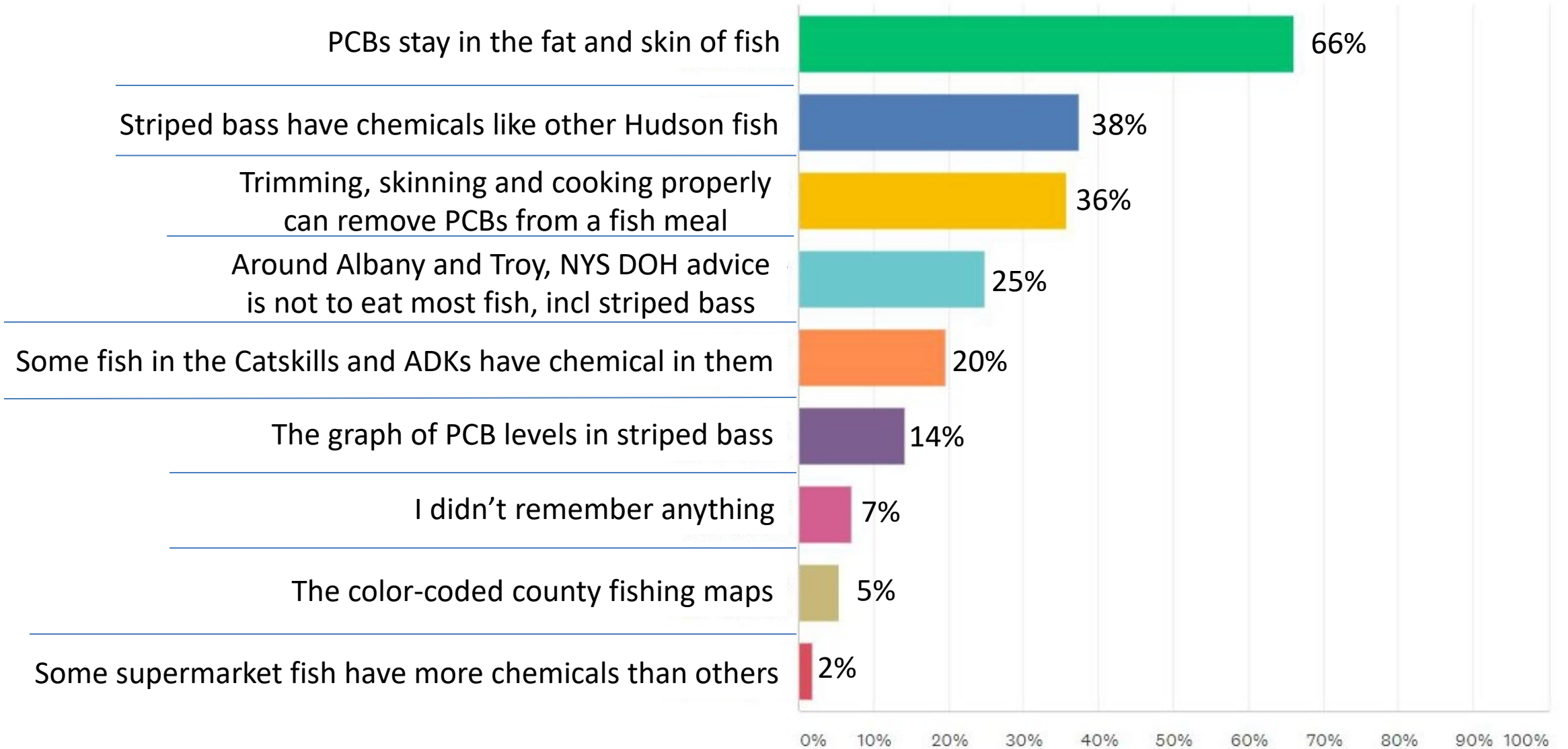
What are the best reasons for eating fish or crabs that you catch? (check all that apply) (n= 532)

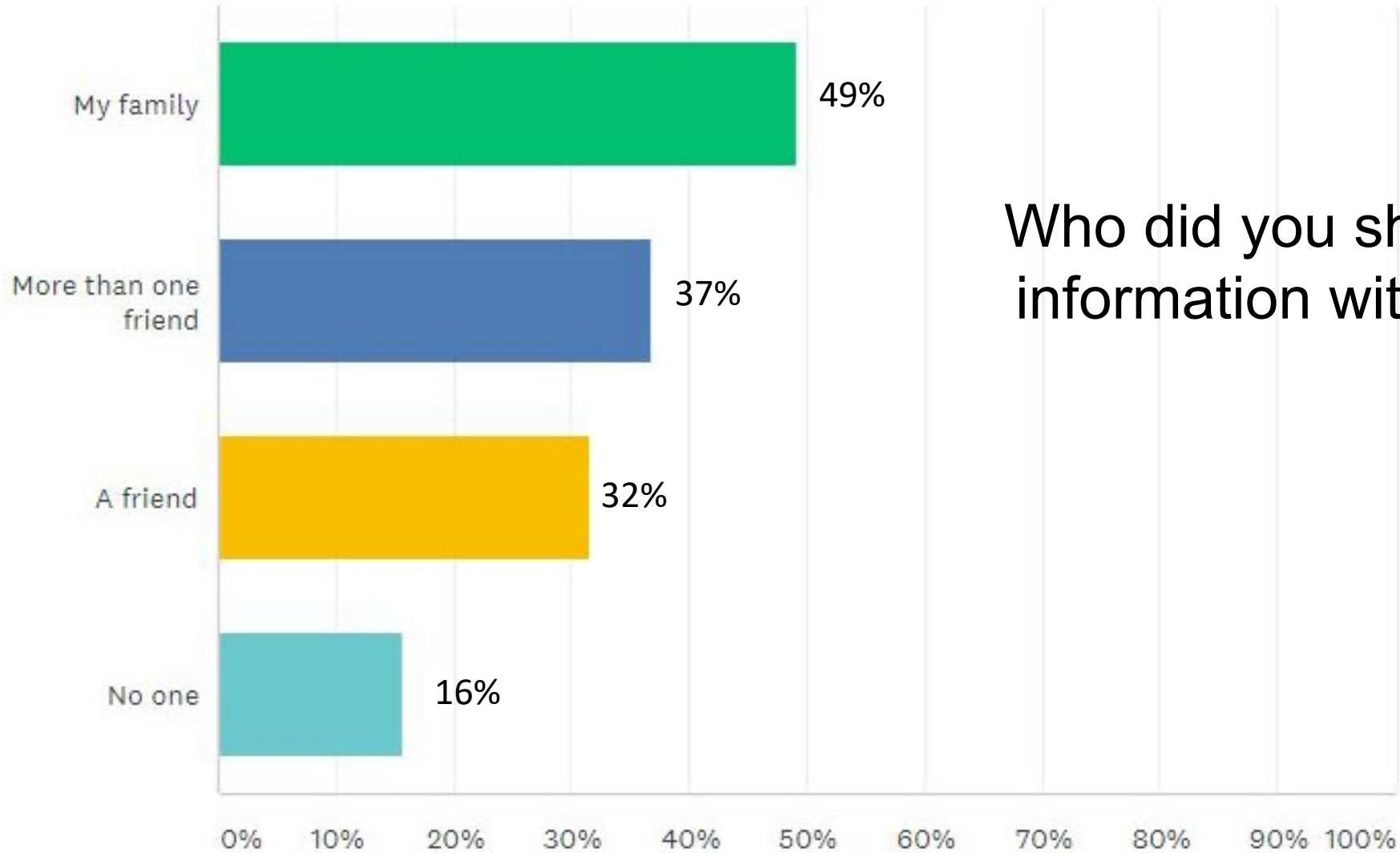
# Return Surveys – Working Towards Measuring Behavior Change



Since reading the material or speaking with staff: (n=57)

# What is something you remember reading or from talking to us? (n=56)

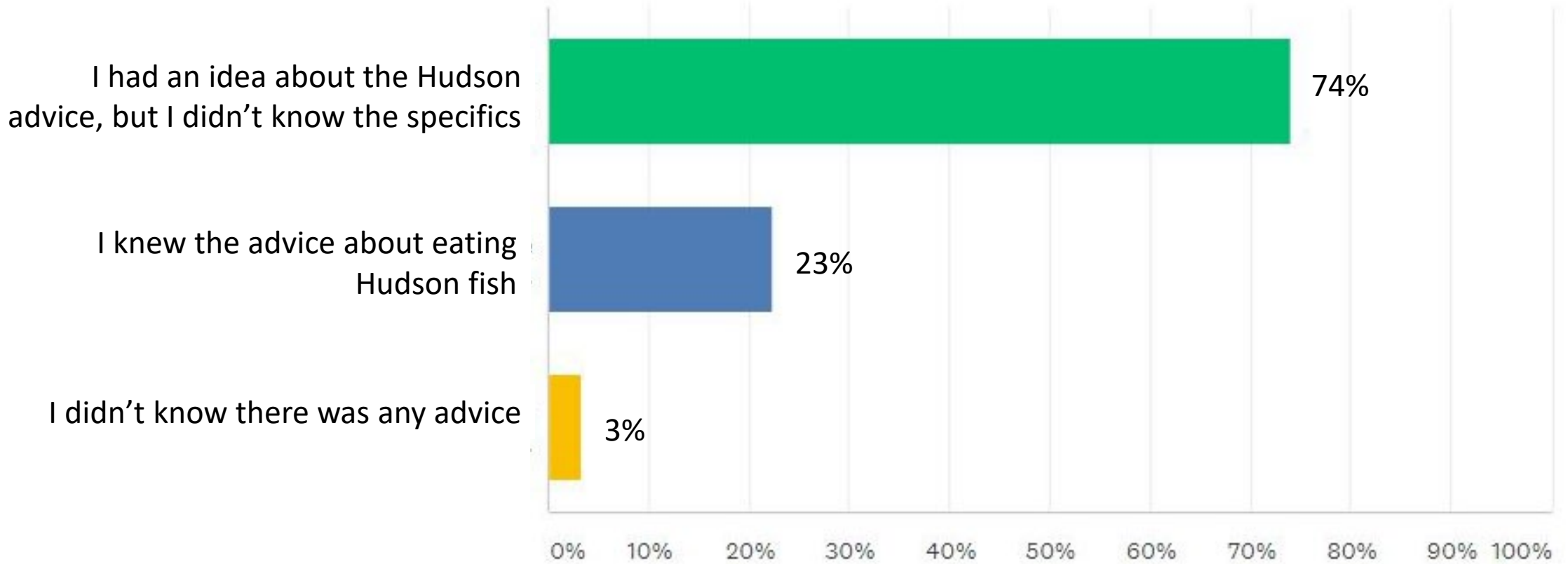




Who did you share the information with? (57)



# Before I saw the materials or talked to NYS DOH: (n=58)

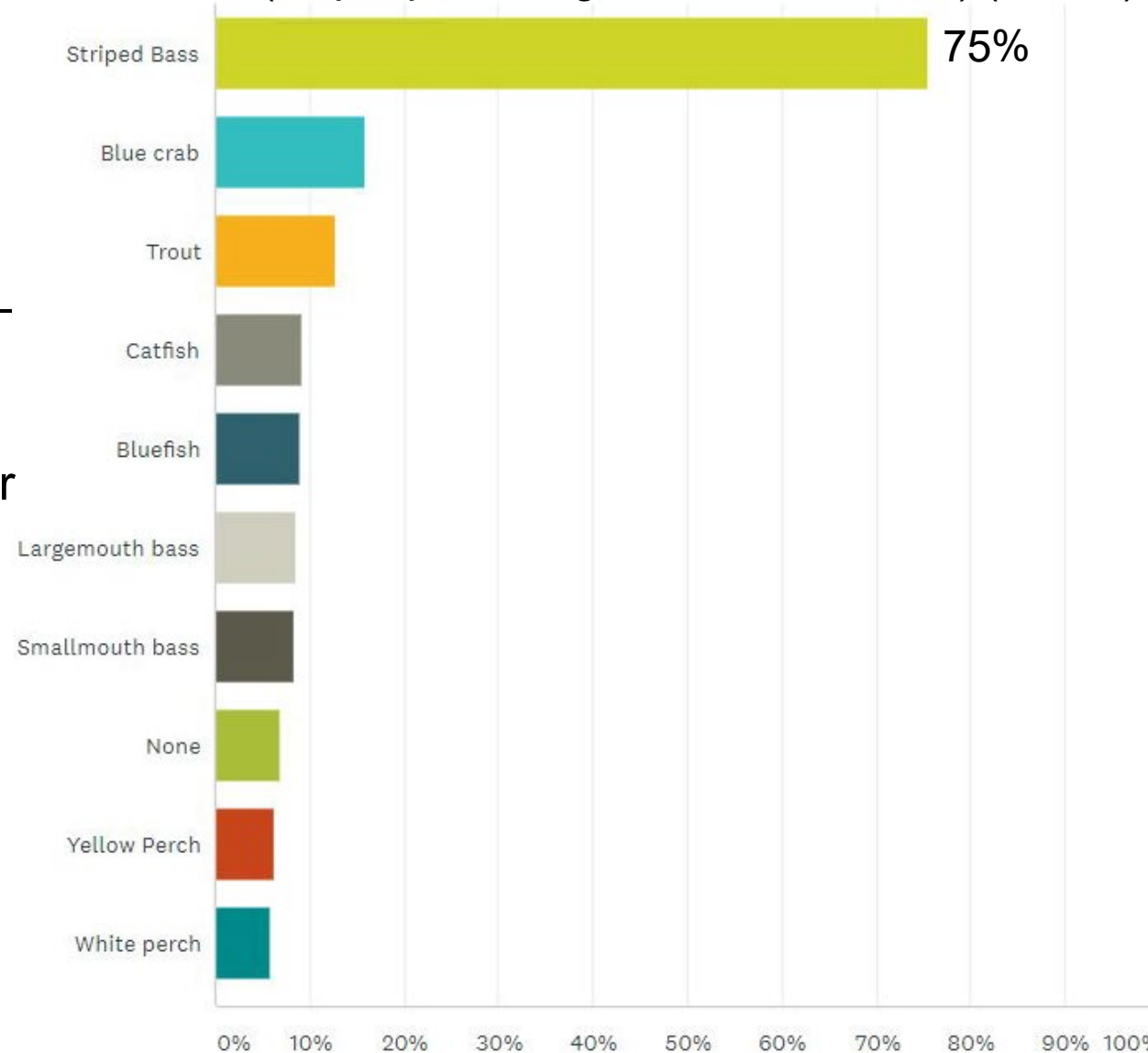


# A Special Focus: Striped Bass

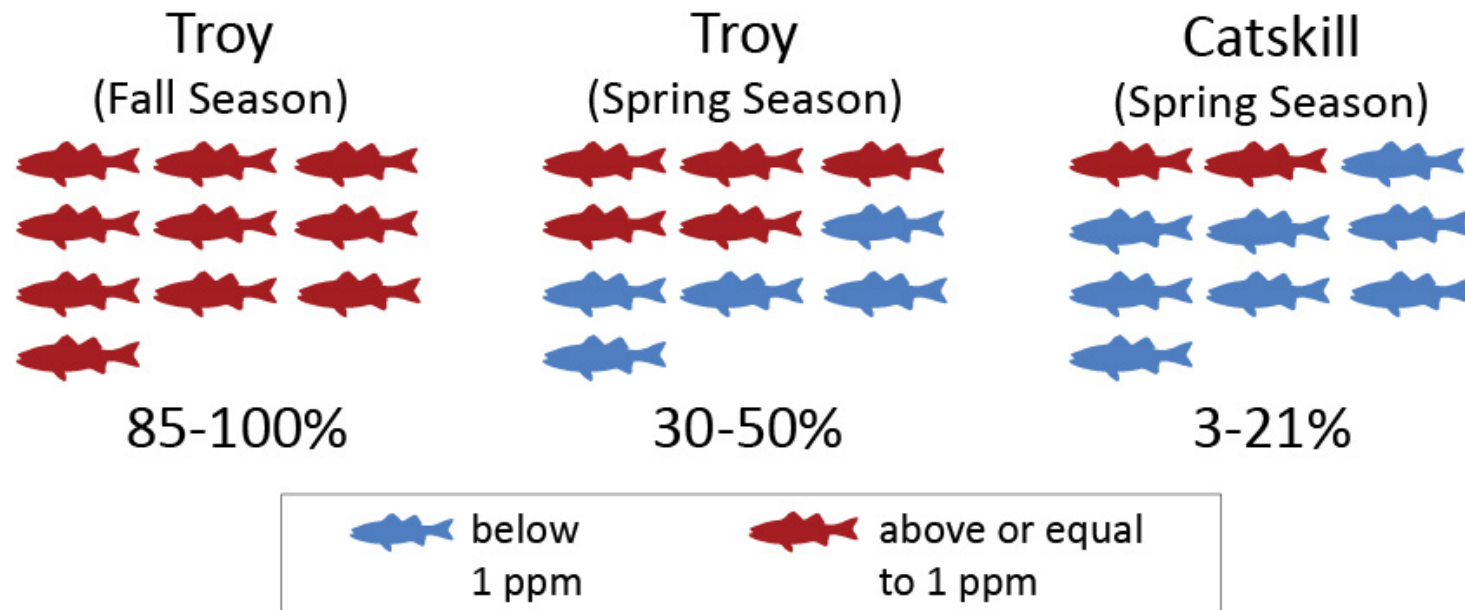
# A Focus on Striped Bass Anglers Emerges

- Many people feel Hudson River fish advisories for striped bass don't apply – believe they are “ocean fish”
- There are no alternative local waters for striped bass, as there are for catfish and walleye (other “don't eat” fish)
- In 2019 NYS DOH posted an in-depth “striped bass packet,” which features PCB data to increase awareness of the advisory

What fish do you most frequently eat from the Hudson River? (Of people eating Hudson River fish) (n=820)

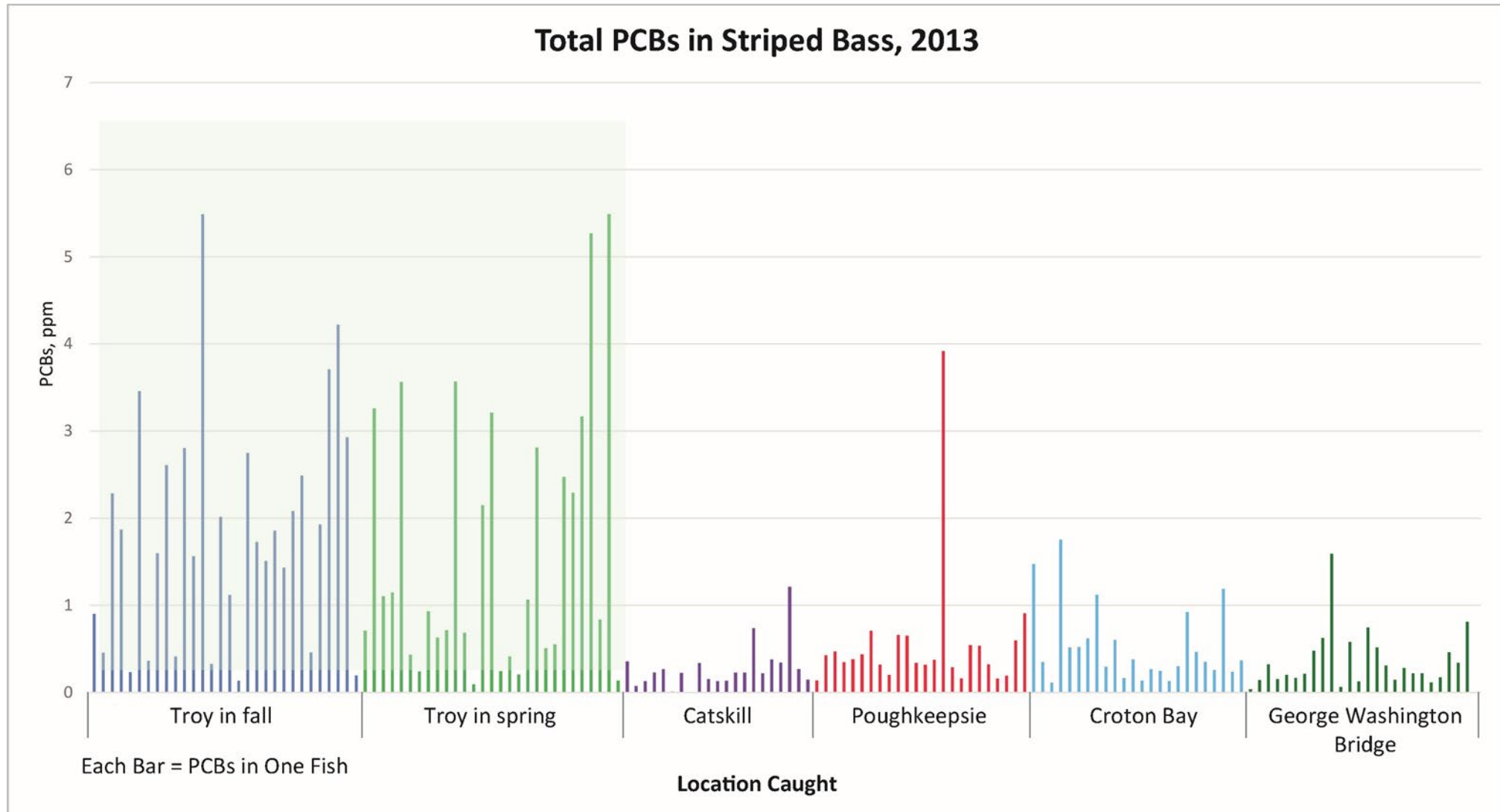


# What are the chances of catching a striped bass with more than 1 part per million (ppm) PCBs?



This graphic represents the percentage of striped bass that exceed 1 ppm (part per million) of PCBs sampled in the Hudson River at Troy and Catskill in any given year **between 2007 and 2015**. One ppm is a health protective guideline used by NYS DOH for setting PCB based fish advisories. Check out the striped bass packet for more details and a “deeper dive” into the data.

# Large Variations in Individual Striped Bass PCB Levels Are the Norm in Fish Caught Between Troy and Catskill



# Media Campaign Planned for Spring ~~2020~~ 2021

COVID derailed original plans...



[www.health.ny.gov/fish/stripedbass.htm](http://www.health.ny.gov/fish/stripedbass.htm)



# Moving Forward

---

- Continue expanding partner networks – especially in Newburgh, Poughkeepsie, and Westchester County
- Reinforce advice for striped bass caught around the Capital District
- Continue working with immigrant and minority communities to increase awareness and refine outreach tools
- Continue working with our NYC partners to reach Hudson River fish consumers in NYC

# Questions?

Audrey Van Genechten  
NYS DOH - Outreach & Education Group  
[audrey.vangenechten@health.ny.gov](mailto:audrey.vangenechten@health.ny.gov)  
518-402-7537 (office)  
518-698-2779 (cell)

For more information about the project:  
[www.health.ny.gov/hudsonriverfish](http://www.health.ny.gov/hudsonriverfish)

Striped Bass info:  
[www.health.ny.gov/fish/strippedbass.htm](http://www.health.ny.gov/fish/strippedbass.htm)





*Draft*

**Third Five-Year Review Report for the  
Hudson River PCBs Superfund Site**

**APPENDIX 8**

**ATTACHMENT B**

**NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH)  
INFORMATION**

July 2024

*Draft*

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**Website: Hudson River Fish Advisory Outreach Project**

# Hudson River Fish Advisory Outreach Project



## Can You Eat that Fish from the Hudson?

Fish are nutritious and good to eat, but some fish have levels of chemicals that may be harmful to your health. PCBs (polychlorinated biphenyls) are a type of man-made chemical in Hudson River fish that can harm your health. Even if the fish look healthy and the water looks clean, these chemicals are present in Hudson River fish, including striped bass.

The New York State Department of Health provides [health advice for eating sportfish from New York State water bodies](#), including the Hudson River. The advice is a guide to how much fish is okay to eat, if any, and [how to clean and cook fish to reduce chemicals](#).

- **Women of childbearing age and children under 15** are advised to not eat any fish or crabs from the Hudson River south of the Corinth Dam because PCBs may be more harmful to young children and unborn babies.
- **The advice for men over 15 and women over 50** depends on where in the river you are fishing and what type of fish you catch: [Health Advice on Eating Hudson River Fish](#) (PDF).
- While Hudson River blue crabs may be a good choice for men and older women, NYS DOH recommends [not eating the green stuff \(liver, tomalley\) in crabs](#) (PDF).

## About the Project

The Hudson River Fish Advisory Outreach Project is a multi-year initiative of the New York State Department of Health. The goal of the Project is for all anglers and others who eat fish from the Hudson River to know about and follow the New York State fish advisories. The project area extends from [Hudson Falls to the New York City Battery](#).

Click below to view project updates summarizing program efforts since 2009 that highlight the successes and challenges of our program. Highlights from the program's Hudson River fish consumption surveys are available at the back of each report and a full appendix of survey results with discussion is available as a separate link below for 2009-2016.



- [2019 Hudson River Fish Advisory Outreach Project Update](#) (PDF).
- [2018 Hudson River Fish Advisory Outreach Project Update](#) (PDF).
- [2017 Hudson River Fish Advisory Outreach Project Update](#) (PDF).
- [2009-2016 Hudson River Fish Advisory Outreach Project Update](#) (PDF).
- [Appendix on Survey Results 2009-2016](#) (PDF).

## Mini-grants and partners

To reach people along nearly 400 miles of the Hudson, local partnerships are critical. The New York State Department of Health works in partnership with other state and local agencies and a multitude of community groups that share our goal - and we welcome new partners.

In 2008, we awarded \$60,500 in small grants to four community groups for outreach to encourage anglers and other fish consumers to follow the Department's Hudson River fish advisories. This level of funding support continued until 2014, when, through a new Request For Applications, we expanded the funding to about \$90,000 annually to six organizations.

Our currently funded partners include:

- CCE of Saratoga County
- CCE of Albany County
- CCE of Rockland County
- CCE of Dutchess County
- Hudson Sloop Clearwater
- Westchester County Parks, Recreation, and Conservation

Connecting at the local level, these partners promote awareness of the health advice, help us learn more about who is eating Hudson fish, and develop educational tools and outreach activities. Grantees work in a variety of settings, from fishing locations on the river to nutrition programs, clinic waiting rooms, community events, food pantries, and with students and youth groups. Since 2009, project partners have reached thousands of school children and adults through environmental and nutrition programs.

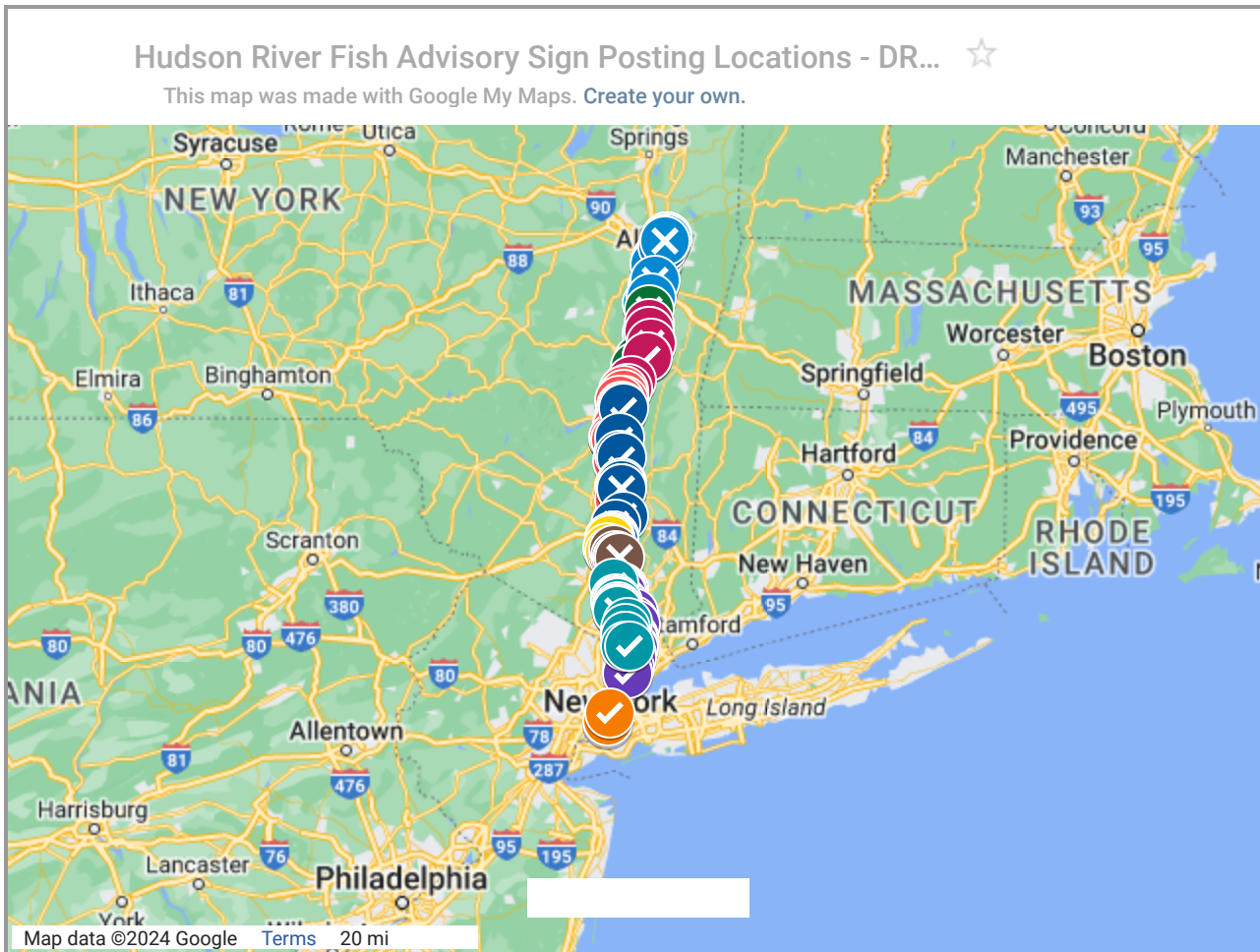
# Hudson River Fish Advisory Signs



Free Hudson River fish advisory signs (coated 12" x 14" aluminum with mounting holes) are available to municipalities and other Hudson River property owners. They are also available in Spanish and Chinese.

Signs are one tool that communities may choose to pursue to alert local anglers about fish advisories. NYS DOH encourages communities to use signs in conjunction with a variety of other methods of outreach. Signs must be posted by the land owner, NYS DOH cannot post signs on their own. Landowners may order FREE signs using [this order form](#).

The Hudson River Fish Advisory Project maintains a database of around 140 locations from the Federal Dam in Troy, Rensselaer County to Yonkers, Westchester County. Every year, program staff do sign inspections in several counties to see if signs need replacement. Staff send letters and make follow-up phone calls to municipalities that need to re-post signs. You can see whether your community has signs posted by exploring this map:



## Free Resources

The New York State Department of Health has developed many free materials to convey the health advice on eating Hudson fish, including brochures, wallet cards, posters, a coloring book and a "Cut the Fat to Cut PCBs" magnet. Below are a few Hudson specific materials that may be ordered for free. To see all NYS DOH fish publications and to order materials, visit our [publications page](#).



### [Hudson River Striped Bass Data Packet](#)

- Can you eat that striped bass from the Hudson River? See PCB data from fish collected in the Hudson River and learn more about why advisories exist for these fish.



### [Hudson River Creatures Activity Book](#)

A 20-page activity and coloring book for schools, health care waiting rooms and Hudson River community events.



### [Cut the Fat to Cut PCBs Fish Trimming Magnet](#)

This brightly colored 4"x4" magnet illustrates the important message of how to reduce PCBs in fish. Also available in [Spanish](#) and [Chinese](#).



### [Can You Eat That Fish From the Hudson?](#)

An 11"x17" poster in [English](#) or [Spanish](#) for your community space.

## Additional Information

- [Public Service Announcements](#)
- [PCBs and Health: The Hudson River Communities Project](#)
- [Health Advice for Eating Sportfish and Game](#)

## Contact Us

If you are interested in finding out more about the **Hudson River Fish Advisory Outreach Project**, please call 518-402-7530 or 1-800-458-1158 or email [hrfa@health.ny.gov](mailto:hrfa@health.ny.gov).

*Draft*

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**Brochure: Hudson River – Health Advice on Eating Fish You Catch**



Catch the Latest Advice

[health.ny.gov/fish](http://health.ny.gov/fish)

**MAP  
INSIDE**

# Hudson River

## Health Advice on Eating Fish You Catch



# Understanding the Advice

The Hudson River offers excellent freshwater and saltwater fishing opportunities between the Adirondack headwaters and New York City's saltwater Upper Bay. The Hudson River is also known for its world class striped bass fishery. Unfortunately, the river has been impacted by a chemical called polychlorinated biphenyls (PCBs). Eating Hudson River fish can be a concern because fish can have many thousand times more PCBs than the surrounding water. Follow the advice to get the benefits of eating fish while reducing your exposure to chemicals.

## Who you are



People who can become pregnant (under age 50) and children under age 15 should avoid eating any fish from the Hudson River. They are the Sensitive Population on our advice tables.

Chemicals in fish can have a greater effect on childhood development and babies. Many of these chemicals can stay in the body for decades. People who eat highly contaminated fish and become pregnant, may be at a higher risk of having children who are slower to develop and learn. Some chemicals can also be passed on to a child in breast milk.



Everyone else may have fewer health risks from eating fish. They are the General Population on our advice tables.

## What you catch

Each fish has specific advice for how much to eat.



Some fish species have higher levels of chemicals than others, even if they are caught in the same waters. Smaller fish usually have fewer chemicals like mercury and PCBs than larger, older fish of the same species.

## Where you fish



The advice on eating Hudson River fish depends upon where on the river you fish. The Upper Hudson between Hudson Falls and Troy has been most affected by PCBs. This area is a “Take No Fish. Keep No Fish” area where catch and release is required. **In general, fish from the Lower Hudson (south of Catskill) are less contaminated.**

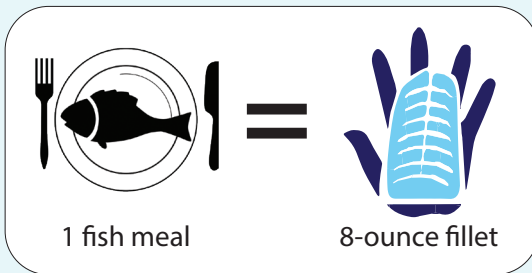
General Population anglers who plan to eat their striped bass should plan to fish in the Lower Hudson (Rip Van Winkle Bridge in Catskill to NYC Battery) where fish are less contaminated.

## Tributaries and other places to fish

The Hudson River advice also applies to its tributaries and connected waters if there are no dams, falls, or barriers to stop the fish from moving upstream. This is because chemicals remain in fish when they move from one waterbody to another.

Detailed maps are available that show the health advice for public access waters in many counties. These maps use color coding to highlight waters with our statewide, regional (Catskill and Adirondack), and specific advisories. The maps show how advisories apply to connected tributaries. They are a quick, visual guide that can help people make better choices about where to fish for food locally. Find them online:

[www.health.ny.gov/fish/maps.htm](http://www.health.ny.gov/fish/maps.htm).



Corinth Dam

South Glens Falls Dam  
(dam at Rte. 9 Bridge)



WASHINGTON

SARATOGA

Schuylerville

### Upper Hudson

Mechanicville

SCHENECTADY

Albany

Federal Dam  
at Troy

ALBANY

RENSSELAER

Schodack

### Mid-Hudson

Coxsackie

COLUMBIA

GREENE

Hudson

Catskill

Rip Van Winkle  
Bridge at Catskill

See page 6 for  
Lower Hudson Advice

Baker's  
Falls in  
Hudson  
Falls

## Upstream of South Glens Falls Dam

Visit [www.health.ny.gov/fish](http://www.health.ny.gov/fish) for this advice or see the Northern Hudson River brochure.

## Upper Hudson

From South Glens Falls Dam to Federal Dam at Troy

Do not eat fish from the Hudson River between the South Glens Falls Dam and the Federal Dam at Troy.

From Baker's Falls to the Federal Dam at Troy, New York's State Department of Environmental Conservation's "catch and release" regulations apply.

**Take No Fish. Eat No Fish.**

## Mid-Hudson

From Federal Dam at Troy to the Rip Van Winkle Bridge at Catskill



General Population



Sensitive Population



Alewife



Blueback herring

**1**

meal/month

**0**

DON'T EAT



Rock bass



Yellow perch

**0**

DON'T EAT

**0**

DON'T EAT

All other fish from the Mid-Hudson (including Striped bass and Walleye)

The sensitive population refers to people who can become pregnant (under age 50) and children under 15. The general population refers to everyone else.

See page 4 for  
**Mid-Hudson Advice**



## Lower Hudson

From Rip Van Winkle Bridge at Catskill  
to the NYC Battery



General  
Population



Sensitive  
Population



Brown trout



Rainbow trout



Yellow perch



Bluegill



Pumpkinseed/Sunfish



Black crappie



White sucker



Rock bass



any fish not listed

**4**  
meals/month

**0**  
DON'T EAT



Striped bass



Smallmouth bass



Largemouth bass



Bluefish



Brown bullhead



White perch



Goldfish



Carp



Freshwater drum



Rainbow smelt



Chain pickerel



Atlantic needlefish



Northern pike

**1**  
meal/month

**0**  
DON'T EAT



Blue crab

Do not eat the tomalley ("green stuff," mustard, hepatopancreas) or reuse cooking water

**6**  
crabs/week

**0**  
DON'T EAT



Walleye



White catfish



Channel catfish



American eel\*



Gizzard shad

**0**  
DON'T EAT

**0**  
DON'T EAT

*\*DEC regulations prohibit taking American eel for food from the Hudson River*

The sensitive population refers to people who can become pregnant (under age 50) and children under 15. The general population refers to everyone else.

## The Hudson River Fish Advisory Outreach Project

The NYS DOH Hudson River Fish Advisory Outreach Project helps anglers and others who eat fish from the Hudson River know about, understand, and follow the advisories.

To learn more about the project visit:  
[www.health.ny.gov/hudsonriverfish](http://www.health.ny.gov/hudsonriverfish)

### New York State Fish Advisories

[www.health.ny.gov/fish](http://www.health.ny.gov/fish)  
(518) 402-7530 or 1-800-458-1158  
[HRFA@health.ny.gov](mailto:HRFA@health.ny.gov)

Detailed, county-level fishing maps: [www.health.ny.gov/fish/maps.htm](http://www.health.ny.gov/fish/maps.htm)

### New York State Fishing

Department of Environmental Conservation (DEC)  
Visit [dec.ny.gov/things-to-do/freshwater-fishing](http://dec.ny.gov/things-to-do/freshwater-fishing); (518) 402-8920

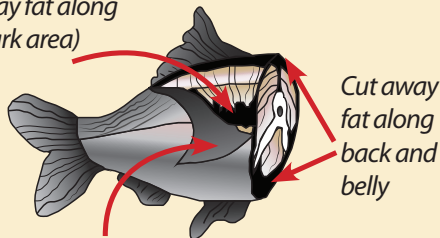
### Fish from Stores and Restaurants

Visit [www.fda.gov/fishadvice](http://www.fda.gov/fishadvice) or [www.epa.gov/fishadvice](http://www.epa.gov/fishadvice)

#### Cut the Fat to Cut PCBs

Follow the advice below to reduce PCBs by nearly one half.

*Cut away fat along  
side (dark area)*



*Cut away  
fat along  
back and  
belly*

*Remove skin*

- After trimming as shown, broil, grill, or bake the fish on a rack so that fat drips away.
- Do not pan-fry the fish or use drippings to make stock or sauce.

Do not eat the "green stuff" (tomalley)  
in crabs or use the cooking liquid.





*Draft*

# **Third Five-Year Review Report for the Hudson River PCBs Superfund Site**

## **APPENDIX 8**

### **ATTACHMENT B**

#### **NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) INFORMATION**

##### **Advisory Tables: Hudson River Advice Third Five-Year Review Report for the**

Third Five-Year Review Report for the






# Fish Advisories for the Hudson River & Tributaries

The Hudson River offers excellent freshwater and saltwater fishing opportunities between the Adirondack headwaters and New York City's saltwater Upper Bay. The Hudson River is also known for its world class striped bass fishery. Unfortunately, the river has been impacted by PCB contamination. The advice on the Hudson depends on who you are, where you're fishing, and what you're catching. The sensitive population should avoid eating all fish from the Hudson from the South Glens Falls Dam all the way to The Battery. [No one should eat striped bass](#) between the Federal Dam in Troy to the Rip Van Winkle Bridge in Catskill. The general population can eat several species (see tables), but should follow our [tips](#) to reduce exposure to PCBs.

[Maps of the river sections](#) are available at the bottom of the page.

## Advisory Tables

### Hudson River Advice

 Waterbody <sup>1</sup> (County)	 Fish	 General Population	 Sensitive Population	 Chemicals of Concern
Hudson River, upstream from Corinth Dam ( <i>Palmer Falls Dam</i> ) (Warren, Essex, Saratoga, Hamilton)	All fish	See <a href="#">Adirondack Regional Advisory</a>		Mercury
Hudson River, Corinth Dam ( <i>Palmer Falls Dam</i> ) to South Glens Falls Dam at Route 9 Bridge (Warren, Saratoga)	Channel catfish	DON'T EAT	DON'T EAT	PCBs
	Carp	DON'T EAT	DON'T EAT	PCBs
	All other fish	See <a href="#">Adirondack Regional Advisory</a>		Mercury
Hudson River, South Glens Falls Dam at Route 9 Bridge to Hudson Falls Dam at Bakers Falls (Warren, Washington, Saratoga)	All fish	DON'T EAT	DON'T EAT	PCBs
Hudson River, Hudson Falls Dam at Bakers Falls to Federal Dam at Troy (Rensselaer, Albany, Washington, Saratoga)	All fish	Catch and Release fishing ONLY per <a href="#">NYS DEC</a> regulations. Take No Fish. Eat No Fish.	Catch and Release fishing ONLY per <a href="#">NYS DEC</a> regulations. Take No Fish. Eat No Fish.	PCBs
Hudson River, Federal Dam at Troy to Rip Van Winkle Bridge at Catskill <sup>3</sup> (Rensselaer, Albany, Columbia, Greene)	Yellow perch	Up to 1 meal/month	DON'T EAT	PCBs
	Rock bass	Up to 1 meal/month	DON'T EAT	PCBs
	Blueback herring	Up to 1 meal/month	DON'T EAT	PCBs
	Alewife	Up to 1 meal/month	DON'T EAT	PCBs
	All other fish (including Striped bass and Walleye)	DON'T EAT	DON'T EAT	PCBs
Hudson River, Rip Van Winkle Bridge at Catskill to NYC Battery <sup>2,3</sup> (Bronx, Columbia, Dutchess, Greene, New York, Orange,	White perch	Up to 1 meal/month	DON'T EAT	PCBs
	White catfish	DON'T EAT	DON'T EAT	PCBs
	Walleye	DON'T EAT	DON'T EAT	PCBs
	Striped bass	Up to 1 meal/month	DON'T EAT	PCBs

Putnam, Rockland, Ulster, Westchester)	Smallmouth bass	Up to 1 meal/month	DON'T EAT	PCBs
	Rainbow smelt	Up to 1 meal/month	DON'T EAT	PCBs
	Largemouth bass	Up to 1 meal/month	DON'T EAT	PCBs
	Freshwater drum	Up to 1 meal/month	DON'T EAT	PCBs
	Goldfish	Up to 1 meal/month	DON'T EAT	PCBs
	Gizzard shad	DON'T EAT	DON'T EAT	PCBs
	Channel catfish	DON'T EAT	DON'T EAT	PCBs
	Carp	Up to 1 meal/month	DON'T EAT	PCBs
	Crab or lobster tomalley and cooking liquid <sup>2</sup>	DON'T EAT	DON'T EAT	PCBs, Dioxin, Cadmium
	Blue crab meat	Up to 4 meals/month (six crabs per meal)	DON'T EAT	PCBs, Cadmium
	Brown bullhead	Up to 1 meal/month	DON'T EAT	PCBs
	Bluefish	Up to 1 meal/month	DON'T EAT	PCBs
	Atlantic needlefish	Up to 1 meal/month	DON'T EAT	PCBs
	All other fish	<a href="#">See Statewide Advice</a> (Only for General Population)	DON'T EAT	PCBs

The sensitive population refers to people who may become pregnant (under the age of 50) and children under 15. The general population refers to everyone else.

<sup>1</sup> The specific health advisories for the waters listed above also apply to tributaries and connected waters if there are no dams, falls, or barriers to stop the fish from moving upstream.

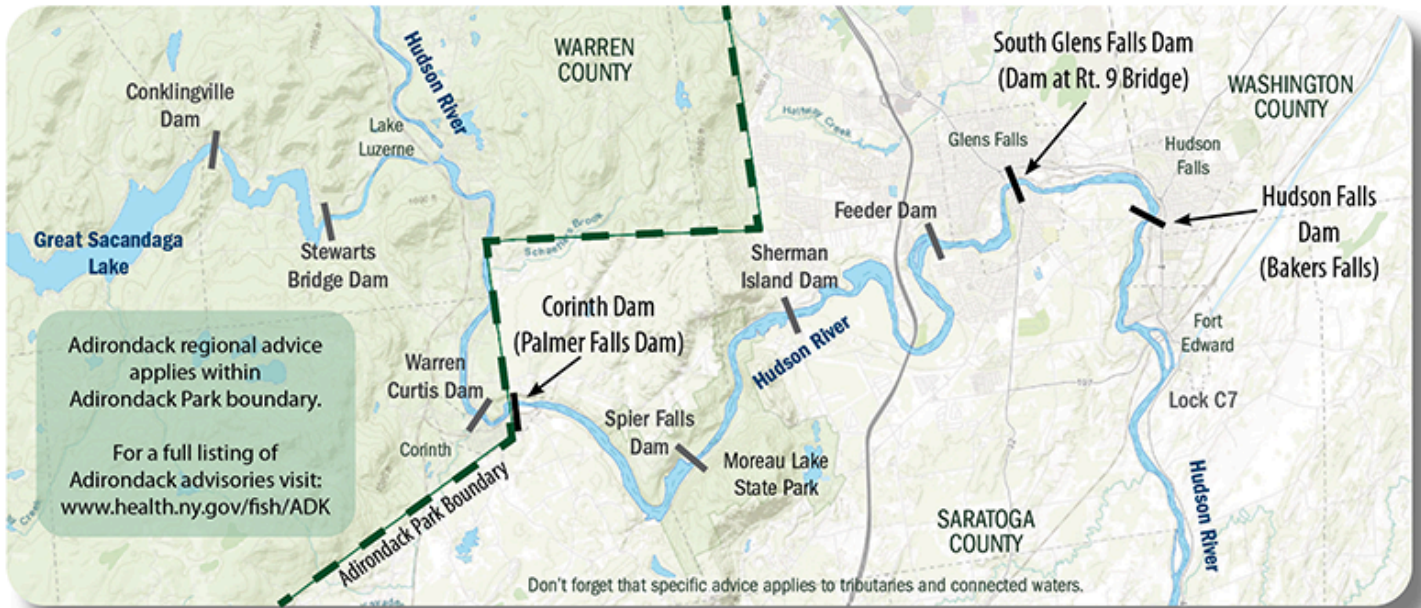
<sup>2</sup> Don't eat the soft "green stuff" (mustard, tomalley, liver, or hepatopancreas) found in the body section of crabs and lobsters from any waters because cadmium, PCBs, and other contaminants concentrate there. As contaminants are transferred to cooking liquid, you should also discard crab or lobster cooking liquid.

<sup>3</sup> Check the [NYS DEC website](#) for updated regulations and special restrictions for certain species.

## Maps

[Return to Table](#)

### Northern Hudson River Map



### Hudson River Map

